

REPORT

Wear Testing Standards Database

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ABSTRACT

This report outlines the compilation of a database of currently available wear testing standards. The report includes a complete list of standards, listed by country and standard number. The standards have then been listed by five categories: application, friction-related documents, specific materials, wear type and test methods.

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Approved on behalf of the Managing Director, NPL, by
Dr C Lea, Centre for Materials Measurement and Technology

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Wear Testing Standards Database

Introduction

A database of currently available wear testing standards has been compiled as part of project CAM 8, *The Production of a Guide to Wear Testing For Industry*. The overall aim of the project is to develop guidance for industry on the choice of different wear testing methods and their applicability to particular industrial wear problems. The project is funded by Department of Trade and Industry under the Characterisation and Performance of Advanced Materials Programme.

This database builds on the *Compilation of International Standards for Friction and Wear Testing of Materials* produced within VAMAS¹. The purpose of both the NPL database and the previous VAMAS report is to provide an index which lists standards based on friction and wear testing of materials. The VAMAS report consisted of contributions of representatives from Germany, Japan, France, UK, USA, Canada, Finland and Poland. The NPL database also includes standards from Australia, Italy, Netherlands, Sweden and international bodies, such as ISO.

The compilation lists 424 wear testing procedures. This database of standards covers both standards for the specification of products, and also more general test methods. The standards originate from many countries around the world. However, the strong output of the ASTM G 2 committee on wear testing is evident in the number of standards that have been issued by ASTM. There is also a strong representation from the German wear testing community through DIN standards.

There is likely to be considerable duplication within the database, with the same test method listed several times within standards originating from different countries and for the specification of different products.

This report gives a summary of the database; the structure is similar to the VAMAS report. The first section lists the standards alphabetically, by country and by the standards organisation within that country. For each standard the following categories are recorded: standard number, title, lubrication condition, material(s), test method(s), whether friction was measured, wear type, application areas, special environments and other comments. Related standards are listed under other comments.

Several abbreviations are used. Under the code number G designates a guideline and P a practice. If there is no designation the record is either a standard or the type of document is unknown. For lubrication condition L stands for lubricated and U for unlubricated.

Following the format of the VAMAS report the standards have been listed in five indexes, by application, friction-related documents, specific materials, wear type and test methods. In each of these indexes the standard number is listed as well as an abbreviation referring to the country of origin of the standard. These are as follows: As = Australia, C = Canada, F = France, G = Germany, I = International, It = Italy, J =

Japan, N = Netherlands, P = Poland, S = Sweden, UK = United Kingdom and US = United States of America.

The list of standards and the five indexes follow but an overall summary of the test methods described is given in the following table and figure.

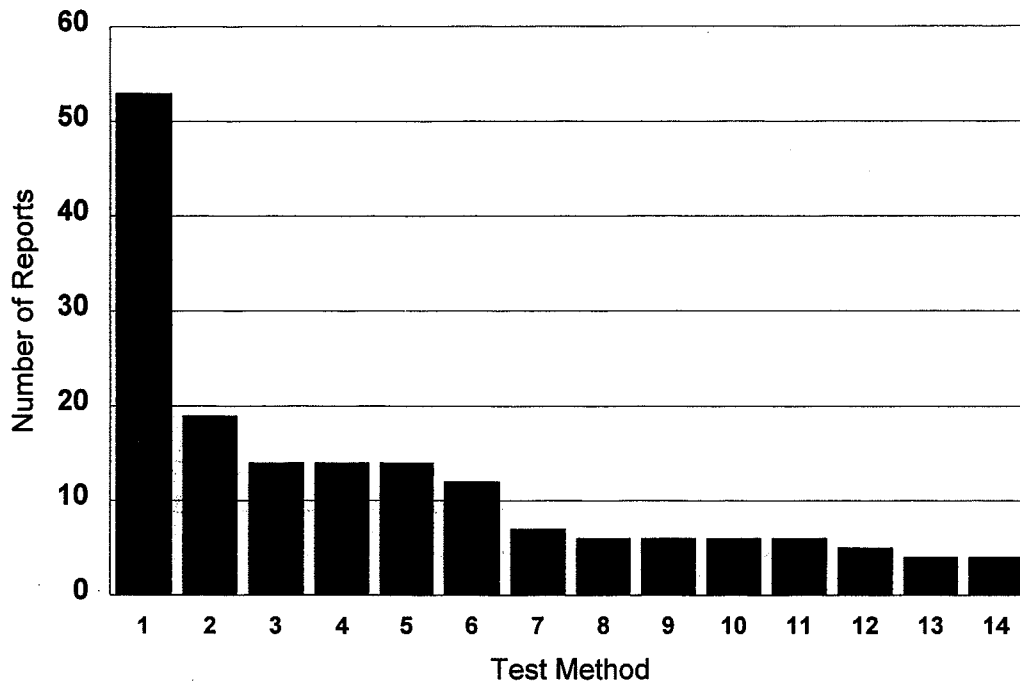
It can be seen that the commonest category listed is specific component tests where particular components are tested in specially designed test systems or in the normal application environment. The next largest category is not for test methods as such, but is for documents describing terms and definitions. The next largest category of standards is a number of different types of abrasive test methods. There is also a number of sliding wear tests listed.

The large number abrasive wear testing standards shows an encouraging agreement with the industrial need identified by the survey of industrial wear problems. However, the very large number of standards that are listed, with the duplication that is inherent, gives considerable scope for rationalisation.

Table of number of different test methods reported in standards database

Test Method	Number Reported
Specific component test	53
Terms and definitions, guidelines	19
Abrasive wheel	14
Dry or wet sand / rubber wheel	14
Rotating drum	14
Four-ball test	12
Jet erosion	12
Pin-on-disc	11
Abrasive paper	8
Rubbing	7
Falling abrasive	6
Sliding block test	6
Slurry erosion test	6
Vibrating Tray	6
Reciprocating	5
Block-on-ring	4
Flat-on-flat	4
Amsler machine	3
Deval machine	3
Falex pin and vee block	3
Micro deval wear test	3
Miller abrasion test	3
Revolving platform, double-head abrader	3
Cup rotating against block	2
Pendulum friction test	2
Scrape test	2
Thrust washer	2

Figure showing number of reports of specific test methods in standards database



ACKNOWLEDGEMENTS

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REFERENCES

1. BLAU, P.J. *A Compilation of International Standards for Friction and Wear Testing of Materials*, VAMAS TWA1, Report No. 14, Sept 1993

Wear Testing Standards

NPL Report CMMT (A)89

Country: Australia

AS: Standards of Australia

Standard No: AS 1141:PT42

Date: 1984

Title: Methods for Sampling and Testing Aggregate - Pendulum Friction Test (PAFV)

Lubricated /Un: U

Material(s): aggregate

Test Method: pendulum friction test

Friction Measured? ☒ **Wear Type:**

Application Areas: aggregates, pendulum friction test

Special Environments:

Other Comments:

Standard No: AS 1683.21

Date: 1982

Title: Methods of Test for Rubber - Rubber-Vulcanised - Determination of Abrasion Resistance Using a Rotating Cylindrical Device

Lubricated /Un: U

Material(s): rubber, vulcanised

Test Method: rotating cylindrical device

Friction Measured? ☐ **Wear Type:** abrasion

Application Areas: rubber, abrasion resistance

Special Environments:

Other Comments:

Standard No: AS 2001.2.28

Date: 1992

Title: Methods of Test for Textiles - Physical Tests - Determination of Abrasion Resistance of Textile Fabrics (Rotary Platform, Double-Head Method)

Lubricated /Un: U

Material(s): textiles

Test Method: revolving platform, double-head (RPDH) abrader

Friction Measured? ☐ **Wear Type:** abrasion

Application Areas: textiles, abrasion resistance

Special Environments:

Other Comments:

Standard No: AS 2039:PT5.1

Date: 1978

Title: Methods for Testing Anodic Oxidation Coatings on Aluminium and Aluminium Alloys - Abrasion Resistance Tests - Jet Test for Abrasion Resistance of Anodic Oxidation Coatings

Lubricated /Un: U

Material(s): anodic oxidation coating, Al and Al alloys

Test Method: abrasive jet

Friction Measured? ☐ **Wear Type:** abrasion

Application Areas: oxide coatings on Al and alloys

Special Environments:

Other Comments:

Standard No: AS 2039:PT5.2**Date:** 1978**Title:** Methods for Testing Anodic Oxidation Coatings on Aluminium and Aluminium Alloys -
Abrasion Resistance Tests - ASTM Test for Abrasion Resistance of Anodic Oxidation Coatings**Lubricated /Un:** U**Material(s):** anodic oxidation coating, Al and Al alloys**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** oxide coatings on Al and alloys**Special Environments:****Other Comments:****Standard No:** AS 2219:PT2.3**Date:** 1978**Title:** Methods of Test for Vitreous Enamel Coatings - Physical Tests - Determination of Abrasion
Resistance of Vitreous Enamel Coatings**Lubricated /Un:** U**Material(s):** vitreous enamel coatings**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** vitreous enamel coatings, abrasion resistance**Special Environments:****Other Comments:****Standard No:** AS 3696.13**Date:** 1991**Title:** Wheelchairs - Determination of Coefficient of Friction of Test Surfaces**Lubricated /Un:** U**Material(s):** concrete, floors**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** wheelchairs, coefficient of friction of floor surfaces**Special Environments:****Other Comments:** Identical to ISO 7176/13-**Standard No:** AS 4143.5**Date:** 1993**Title:** Methods of Test for Fibre Ropes - Resistance to Flexion and Surface Abrasion**Lubricated /Un:** U**Material(s):** fibre ropes**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** fibre ropes, resistance to flexion and surface abrasion**Special Environments:****Other Comments:****Standard No:** AS 4143.6**Date:** 1996**Title:** Methods of Test for Fibre Ropes - Resistance to Abrasion**Lubricated /Un:** U**Material(s):** fibre ropes**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** fibre ropes, resistance to abrasion**Special Environments:****Other Comments:**

Standard No: AS 4266.20**Date:** 1997**Title:** Reconstituted Wood-Based Panels - Method of Test - Determination of Resistance to Surface Abrasion (Taber Abrasion Test)**Lubricated /Un:** U **Material(s):** wood**Test Method:** abrasive wheel, Taber Abrasion Test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** wood-based panels, surface abrasion**Special Environments:****Other Comments:**

Standard No: AS1774.23**Date:** 1987**Title:** Refractories and Refractory Materials - Physical Test Methods - Abradability Index**Lubricated /Un:** U **Material(s):** refractory materials**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** refractory materials, abradability index**Special Environments:****Other Comments:**

Country: Canada

CSA: Canadian Standards Association

Standard No: CSA Z323.4.9**Date:** 1994**Title:** Wheelchairs - Determination of Coefficient of Friction of Test Surfaces**Lubricated /Un:** U **Material(s):** concrete, floors**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** wheelchairs, coefficient of friction of floor surfaces**Special Environments:****Other Comments:** Identical to ISO 7176/13-

Country: France

CETIM

Standard No: PIN-TEST.CETIM (1984)**Date:** 1984**Title:** Instrumented Abrasive Pin-Test (IAPT)**Lubricated /Un:** U **Material(s):** no specific material mentioned**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** abrasion**Application Areas:** abrasive pin test**Special Environments:****Other Comments:**

Standard No: TBV.CETIM, G**Date:****Title:** Test Method for Wear Testing with a Pin-on-Disc Apparatus**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** pin-on-disc**Special Environments:****Other Comments:** joint with ASTM G99

Standard No: TGV-CETIM (1989), G**Date:** 1989**Title:** Test Method for Wear Testing with a High-Speed Pin-on-Disc Apparatus**Lubricated /Un:** U**Material(s):** ceramics and plastics**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** pin-on-disc, high speed**Special Environments:****Other Comments:**

LTDS: Ecole Centrale de Lyon

Standard No: Not numbered, G**Date:****Title:** Test Method for Wear Testing with a Pin-on-Disc Apparatus**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** pin-on-disc**Special Environments:** temp. >25 C, other than air environments**Other Comments:**

Standard No: Not numbered, G**Date:****Title:** Test Method for Wear Testing With a Pin-on-Disc Apparatus under Vacuum Conditions**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** tribochemical reactions in sliding wear**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** pin-on-disc, vacuum conditions**Special Environments:** vacuum environments**Other Comments:**

Standard No: Not numbered, G**Date:****Title:** Test Method for Wear Testing With a Flat-on-Flat Contact Apparatus**Lubricated /Un:** L**Material(s):** no specific material mentioned**Test Method:** lubricant efficiency test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:****Special Environments:** temp. >25 C**Other Comments:**

Standard No: Not numbered, G**Date:****Title:** Test Method for Wear Testing With a Flat-on-Flat Contact Apparatus at High Temperature**Lubricated /Un:** U**Material(s):** metals, alloys and ceramics**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** flat-on-flat, high temperature**Special Environments:** temp. > 25 C, other than air environments**Other Comments:**

Standard No: Not numbered, G**Date:****Title:** Test Method for Wear Testing With a High-Speed Pin-on-Cylinder Apparatus**Lubricated /Un:** U**Material(s):** metals, alloys, ceramics and plastics**Test Method:** lubricant efficiency test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:****Special Environments:** temp. > 25 C**Other Comments:**

NF: Association Francaise de Normalisation

Standard No: NFB 10-508**Date:**

1973

Title: Quarry Products - Limestone - Metal Disc Wear Test**Lubricated /Un:** U**Material(s):** limestone**Test Method:** metal disc**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** quarry products**Special Environments:****Other Comments:**

Standard No: NFC 26-251**Date:** 1980**Title:** Methods of Testing Insulating Materials. Methods of Test for Coefficients of Friction of Plastic Film and Sheeting for Use as Electrical Insulation**Lubricated /Un:** U**Material(s):** plastic film and sheeting**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** electrical insulation, coefficient of friction**Special Environments:****Other Comments:** Identical to IEC 648**Standard No:** NFD 14-501**Date:** 1985**Title:** Sanitary Appliances - Resistance to Abrasion of Enamelled Surfaces - Test Method**Lubricated /Un:** U**Material(s):** enamel coating**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** sanitary appliances, abrasion resistance**Special Environments:****Other Comments:****Standard No:** NFL 52-250-53**Date:** 1993**Title:** Cables, Electrical, Aircraft Use - Test Methods - Scrape Abrasion**Lubricated /Un:** U**Material(s):****Test Method:** scrape**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** electrical cables, aircraft use**Special Environments:****Other Comments:** Identical to PREN 3475-503**Standard No:** NFP 18-572**Date:** 1990**Title:** Aggregates - Micro Deval Wear Test**Lubricated /Un:** U**Material(s):** aggregate**Test Method:** micro deval wear test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** aggregates**Special Environments:****Other Comments:****Standard No:** NFP 22-461**Date:** 1979**Title:** Metal Structures - Assembly of Friction Grip Bolts - Determination of the Conventional Coefficient of Friction**Lubricated /Un:****Material(s):** metals or alloys**Test Method:****Friction Measured?** ☒ **Wear Type:****Application Areas:** friction grip bolts, coefficient of friction**Special Environments:****Other Comments:**

Standard No: NFT 30-015**Date:** 1991**Title:** Paints - Scratch Resistance Test**Lubricated /Un:** U**Material(s):** paint, coating**Test Method:** scratch testing**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paint, scratch resistance**Special Environments:****Other Comments:****Standard No:** NFT 51-108**Date:** 1984**Title:** Plastics - Friction and Wear by Sliding - Definitions of Terms and General Characteristics**Lubricated /Un:****Material(s):** plastics**Test Method:** definitions**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastics, friction and wear, definitions**Special Environments:****Other Comments:****Standard No:** NFT 51-110**Date:** 1977**Title:** Plastic Materials - Wear Test By Means of Friction With Plane-to-Plane Contact Friction by Means of Alternative Linear Sliding**Lubricated /Un:** U**Material(s):** plastic**Test Method:** flat-on-flat**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastics**Special Environments:****Other Comments:****Standard No:** NFT 54-112**Date:** 1980**Title:** Plastic Sheets - Determination of Slippage - Measurement of Friction Coefficient**Lubricated /Un:****Material(s):** plastic sheets**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastic sheets, coefficient of friction**Special Environments:****Other Comments:****PR:** Association European des Constructeurs de Material Aerospacial

Standard No: PREN 3475-503**Date:** 1992**Title:** Cables, Electrical, Aircraft Use - Test Methods - Scrape Abrasion**Lubricated /Un:** U**Material(s):****Test Method:** scrape**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** electrical cables, aircraft use**Special Environments:****Other Comments:** Identical to NFL 52-250-503

VALEO Friction Material Corporation

Standard No: EC01-EC03-EC05 (1992)**Date:** 1992**Title:** Test Procedures for friction coefficient and wear analysis**Lubricated /Un:** L**Material(s):** no specific material mentioned**Test Method:** general laboratory test for sliding wear**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** friction coefficient**Special Environments:** other than air environments**Other Comments:**

Standard No: EC02-EC04 (1992) G**Date:** 1992**Title:** Test Procedures for Pre-selection of Oil Friction Materials**Lubricated /Un:** L**Material(s):** friction materials for given applications**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** oil friction materials**Special Environments:** other than air environments**Other Comments:**

Country: Germany

DIN: Deutsches Institut fur Normung

Standard No: DIN 14811 (PT3)**Date:** 1977**Title:** Fire Hose; Abrasion Test**Lubricated /Un:** U**Material(s):** plastic, fire hoses**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** fire hoses, abrasion resistance**Special Environments:****Other Comments:**

Standard No: DIN 1496**Date:** 1996**Title:** Plain Bearings; Testing of Friction and Wear of Sintered Bearings; Testing in the SLPG-Tester**Lubricated /Un:****Material(s):****Test Method:** SLPG tester**Friction Measured?** ☒ **Wear Type:****Application Areas:** bearings, friction and wear tests**Special Environments:****Other Comments:****Standard No:** DIN 15436**Date:** 1989**Title:** Power Transmission Engineering; Drum and Disk Brakes, Technical Requirements for Brake Linings**Lubricated /Un:** U**Material(s):** polymers**Test Method:** brake lining requirements**Friction Measured?** ☒ **Wear Type:** sliding wear, abrasive wear**Application Areas:** brake linings**Special Environments:****Other Comments:****Standard No:** DIN 31652**Date:** 1983**Title:** Plain Bearings, Hydrodynamic Plain Journal Bearings Designed for Operation under Steady State Conditions; Design of Circular Cylindrical Bearings**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** rules for calculation**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:****Special Environments:****Other Comments:** Parts 1, 2, 3, Corresponds to ISO/DIS 7902-1, 2 and 3**Standard No:** DIN 31653**Date:** 1991**Title:** Plain Bearings, Hydrodynamic Plain Thrust Bearings under Steady State Conditions; Calculation of Pad Thrust Bearings**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** rules for calculation**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:****Special Environments:****Other Comments:****Standard No:** DIN 31654**Date:** 1991**Title:** Plain Bearings, Hydrodynamic Plain Thrust Bearings under Steady State Conditions; Calculation of Tilting Pad Thrust Bearings**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** rules for calculation**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:****Special Environments:****Other Comments:**

Standard No: DIN 31661**Date:** 1983**Title:** Plain Bearings; Terms; Characteristics and Causes of Changes and Damage**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** terms and definitions**Friction Measured?** ☐ **Wear Type:** wear atlas**Application Areas:** bearings, plain, terms**Special Environments:****Other Comments:****Standard No:** DIN 31680**Date:** 1985**Title:** Plain Bearings; Testing of the Tribological Behaviour of Plastics**Lubricated /Un:** U**Material(s):** plastics**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** bearings, plain, plastic bearing materials**Special Environments:****Other Comments:****Standard No:** DIN 3979**Date:** 1979**Title:** Tooth Damage on Gear Trains; Designation, Characteristics, Causes**Lubricated /Un:** U&L**Material(s):** metals or alloys**Test Method:****Friction Measured?** ☐ **Wear Type:** atlas of various wear types**Application Areas:****Special Environments:****Other Comments:****Standard No:** DIN 50280**Date:** 1975**Title:** Running Test on Radial Plain Bearings; General (Plain Bearings; Testing of the Tribological Behaviour of Plain Bearings with Hydrostatic and Mixed Lubrication in Bearing Testing**Lubricated /Un:** L**Material(s):** no specific material mentioned**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** bearings**Special Environments:** above room temperature**Other Comments:** Corresponds to ISO TR 6281-**Standard No:** DIN 50281**Date:** 1977**Title:** Friction in Bearings; Definitions; Types; Conditions; Physical Quantities**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** definitions**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** bearings, friction, types, definitions**Special Environments:****Other Comments:** Supplemented by DIN 50323

Standard No: DIN 50282**Date:** 1979**Title:** Plain Bearings The Tribological Behaviour of Metallic Anti-Friction Materials; Significant Terms**Lubricated /Un:** U&L**Material(s):** antifriction materials**Test Method:** definitions**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** bearing materials, anti-friction**Special Environments:****Other Comments:****Standard No:** DIN 50313**Date:** 1984**Title:** Testing of Abrasives; Testing of Mineral Single Way and Rotation Abrasives by Compressed Air Blasting Method; Efficiency Test**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion, impact wear. solid particle erosion**Application Areas:****Special Environments:****Other Comments:** CANCELLED**Standard No:** DIN 50320**Date:** 1979**Title:** Wear; Terms; System Analysis of Wear Processes; Classification of Wear Phenomena**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** definitions**Friction Measured?** ☐ **Wear Type:****Application Areas:** wear terms and classifications**Special Environments:****Other Comments:****Standard No:** DIN 50321, G**Date:** 1979**Title:** Wear Quantities**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** definitions**Friction Measured?** ☐ **Wear Type:** various wear types**Application Areas:** wear quantities**Special Environments:****Other Comments:****Standard No:** DIN 50322**Date:** 1986**Title:** Wear; Wear Testing Categories**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** definitions of scales of testing**Friction Measured?** ☐ **Wear Type:** all types of wear**Application Areas:** wear testing, categories**Special Environments:****Other Comments:**

Standard No: DIN 50323 PT1**Date:** 1988**Title:** Tribology; Terms**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** terms and definitions**Friction Measured?** ☐ **Wear Type:** various wear types**Application Areas:** tribology terms**Special Environments:****Other Comments:**

Standard No: DIN 50323 PT2**Date:** 1995**Title:** Tribology; Wear; Terms**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** terms and definitions**Friction Measured?** ☐ **Wear Type:** various wear types**Application Areas:** tribology terms**Special Environments:****Other Comments:**

Standard No: DIN 50323 PT3**Date:** 1993**Title:** Tribology; Friction; Definitions; Types; Conditions; Quantities**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** terms and definitions**Friction Measured?** ☐ **Wear Type:** various wear types**Application Areas:** tribology terms**Special Environments:****Other Comments:** in preparation to replace DIN 50281

Standard No: DIN 50323 PT4**Date:** 1988**Title:** Tribo-Technic**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** terms and definitions**Friction Measured?** ☐ **Wear Type:** various wear types**Application Areas:** tribology terms**Special Environments:****Other Comments:** in preparation

Standard No: DIN 50324**Date:** 1992**Title:** Tribology; Testing of Friction and Wear; Model Test for Sliding Friction of Solids, Ball-on-Disc System**Lubricated /Un:** U**Material(s):** metals or alloys, ceramics**Test Method:** ball-on-disc**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** ball-on-disc**Special Environments:****Other Comments:** draft related to VAMAS round-robin

Standard No: DIN 50332**Date:** 1989**Title:** Solid Particle Erosion Test; Basic Rules**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** solid erosion**Application Areas:****Special Environments:****Other Comments:****Standard No:** DIN 51152**Date:** 1977**Title:** Testing of Vitreous and Porcelain Enamels; Abrasion Test; Loss in Mass after Surface Abrasion**Lubricated /Un:** U**Material(s):** ceramics, enamels**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** enamels, vitreous and porcelain**Special Environments:****Other Comments:** related to ASTM C488, DIN ISO 6370 PTs 1&2 and ISO 6370 PTs 1&2**Standard No:** DIN 51350 PT1**Date:** 1977**Title:** Testing of Lubricants; Testing in the Shell Four-Ball Tester; General**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** four-ball test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubricant characterisation**Special Environments:****Other Comments:** related to ASTM D2267, D2596 and D2783**Standard No:** DIN 51350 PT2**Date:** 1977**Title:** Testing of Lubricants; Testing in the Shell Four-Ball Tester; Determination of the Welding Load of Fluid Lubricants**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** four-ball test**Friction Measured?** ☐ **Wear Type:** sliding wear, galling, seizure, scuffing**Application Areas:** lubricant characterisation, welding load**Special Environments:****Other Comments:****Standard No:** DIN 51350 PT3**Date:** 1977**Title:** Testing of Lubricants; Testing in the Shell Four-Ball Tester; Determination of Wearing Characteristics of Liquids**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** four-ball test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubricant characterisation**Special Environments:****Other Comments:**

Standard No: DIN 51350 PT4**Date:** 1984**Title:** Testing of Lubricants; Testing in the Shell Four-Ball Tester; Determination of Welding Load of Consistent Lubricants**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** four-ball test**Friction Measured?** ☐ **Wear Type:** sliding, galling, seizure, scuffing test**Application Areas:** lubricant characterisation**Special Environments:****Other Comments:****Standard No:** DIN 51350 PT5**Date:** 1984**Title:** Testing of Lubricants; Testing in the Shell Four-Ball Tester; Determination of Wearing Characteristics for Consistent Lubricants**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** four-ball test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubricant characterisation**Special Environments:****Other Comments:****Standard No:** DIN 51350 PT6**Date:** 1996**Title:** Testing of Lubricants; Testing by the Shell Four-Ball Tester, Determination of Shear Stability of Lubricating Oils Containing Polymers**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** four-ball test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubricant characterisation**Special Environments:****Other Comments:****Standard No:** DIN 51354 PT1**Date:** 1990**Title:** Testing of Lubricants; Mechanical Testing of Lubricants in the FZG Gear Rig Test; General Working Principles**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** FZG gear rig test**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** gears, lubricant characterisation**Special Environments:****Other Comments:** Related to ASTM D1947, IP 166**Standard No:** DIN 51354 PT2**Date:** 1990**Title:** Testing of Lubricants; Mechanical Testing of Lubricants in the FZG Gear Rig Test; Method A/8.3/90 for Lubricating Oils**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** FZG gear rig test**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** gears, lubricant characterisation**Special Environments:****Other Comments:** Related to ASTM D1947, CEC 1-07-T, IP 334

Standard No: DIN 51354 PT3**Date:** 1990**Title:** Testing of Lubricants; Mechanical Testing of Lubricants in the FZG Gear Rig Test; Shear Stability of Polymer Containing Oils**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** FZG gear rig test**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** gears, lubricant characterisation**Special Environments:****Other Comments:** CANCELLED**Standard No:** DIN 51389 PT1**Date:** 1982**Title:** Determination of Lubricants; Mechanical Testing of Hydraulic Fluids in the Vane-Cell-Pump; General Working Principles**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** vane pump test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubricant characterisation, hydraulic fluids**Special Environments:****Other Comments:** Related to ASTM D2882, IP 281**Standard No:** DIN 51389 PT2**Date:** 1982**Title:** Determination of Lubricants; Mechanical Testing of Hydraulic Fluids in the Vane-Cell-Pump; Method A for Anhydrous Hydraulic Fluids**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** vane pump test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubricant characterisation, hydraulic fluids**Special Environments:** above room temperature**Other Comments:** Related to ASTM D2882, IP 281**Standard No:** DIN 51389 PT3**Date:** 1988**Title:** Determination of Lubricants; Mechanical Testing of Hydraulic Fluids in the Vane-Cell-Pump; Method B for Aqueous Not Easily Inflammable Fluids**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** vane pump test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubricant characterisation, hydraulic fluids**Special Environments:** above room temperature**Other Comments:****Standard No:** DIN 51509 PT1**Date:** 1976**Title:** Selection of Lubricants for Gears, Gear Lubricating Oils**Lubricated /Un:** L **Material(s):** no specific material mentioned**Test Method:** recommendation for the use of oils**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** lubricant characterisation, hydraulic fluids**Special Environments:****Other Comments:**

Standard No: DIN 51509 PT2**Date:** 1988**Title:** Lubricants; Selection of Lubricants for Gears; Semi-Fluid Lubricants**Lubricated /Un:** L**Material(s):** no specific material mentioned**Test Method:** recommendation for the use of oils**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** oil lubricants**Special Environments:****Other Comments:****Standard No:** DIN 51806 PT2**Date:** 1988**Title:** Testing of Lubricants; Testing Using SKF-R2F Roller Bearing Grease Test Machine Running Test Under Heating Condition**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** rolling contact**Application Areas:** bearing, roller, with grease**Special Environments:** above room temperature**Other Comments:** CANCELLED 1994**Standard No:** DIN 52108**Date:** 1988**Title:** Testing the Abrasive Wear of Inorganic Non-Metallic Materials; Using the Boehme Disc Abrader**Lubricated /Un:** U**Material(s):** ceramics**Test Method:** abrasive wheel**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** grinding wheel wear test**Special Environments:****Other Comments:****Standard No:** DIN 52347**Date:** 1987**Title:** Testing of Glass and Plastics; Abrasion Test Method Using Abrasion Wheels and Measurement of Scattered Light**Lubricated /Un:** U**Material(s):** glass, plastics**Test Method:** abrasive wheel**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** plastics and glass, abrasion testing of**Special Environments:****Other Comments:** similar to ISO 3537, ISO/DIS 3537**Standard No:** DIN 52348**Date:** 1985**Title:** Testing of Glass and Plastics: Abrasion Test; Sand Trickling Method**Lubricated /Un:** U**Material(s):** glass, plastics**Test Method:** falling sand**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** plastics and glass, sand trickling abrasion of**Special Environments:****Other Comments:**

Standard No: DIN 53109**Date:** 1993**Title:** Testing of Paper and Board; Determination of Abrasion by the Abrasion Wheel Method**Lubricated /Un:** U**Material(s):** paper, board**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paper and board, abrasion of**Special Environments:****Other Comments:****Standard No:** DIN 53375**Date:** 1986**Title:** Testing of Plastic Films and Sheeting; Determination of the Coefficients of Friction**Lubricated /Un:** U**Material(s):** plastic films, coatings**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastic films, friction test for**Special Environments:****Other Comments:** Related to ASTM D1894, ISO 8295**Standard No:** DIN 53516**Date:** 1987**Title:** Testing of Rubber and Elastomers; Determination of Abrasion Resistance**Lubricated /Un:** U**Material(s):** plastics, rubber**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** rubber and elastomers, abrasion of**Special Environments:****Other Comments:** Related to ISO 4649**Standard No:** DIN 53528**Date:** 1988**Title:** Testing of Rubber-Coated Textiles; Abrasion Testing; Determination of Loss of Weight by the Frankhauser Apparatus; Wear Test by Scrubbing**Lubricated /Un:** U**Material(s):** textiles, rubber coating**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** rubber-coated tiles, abrasion of**Special Environments:****Other Comments:****Standard No:** DIN 53754**Date:** 1977**Title:** Testing of Plastics; Determination of Abrasion; Abrasive Disc Method**Lubricated /Un:** U**Material(s):** plastics**Test Method:** abrasive disc**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** plastics, abrasive disc test for**Special Environments:****Other Comments:** Identical to ISO 9352

Standard No: DIN 53863 PT1**Date:** 1960**Title:** Testing of Textiles; Abrasion Test Methods for Textile Planar Fabrics**Lubricated /Un:** U**Material(s):** textiles, fabrics**Test Method:** principles**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** textiles, abrasion resistance**Special Environments:****Other Comments:**

Standard No: DIN 53863 PT2**Date:** 1979**Title:** Testing of Textiles; Abrasion Test Methods for Textile Fabrics, Rotary Abrasion Test**Lubricated /Un:** U**Material(s):** textiles, fabrics**Test Method:** rotary abrasion test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** textiles, abrasion resistance**Special Environments:****Other Comments:**

Standard No: DIN 53863 PT4**Date:** 1992**Title:** Testing of Textiles; Abrasion Testing of Textile Fabrics; Martindale Abrasion Test**Lubricated /Un:** U**Material(s):** textiles, fabrics**Test Method:** Martindale abrasion test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** textiles, abrasion resistance**Special Environments:****Other Comments:**

Standard No: DIN 65497 PT1**Date:** 1988**Title:** Aerospace; Determination of Coefficient of Friction of Threaded Fasteners; Test Methods**Lubricated /Un:****Material(s):** metals or alloys**Test Method:****Friction Measured?** ☒ **Wear Type:****Application Areas:** threaded fasteners**Special Environments:****Other Comments:**

Standard No: DIN 8978**Date:** 1973**Title:** Wear Test for Refrigerant Compressors**Lubricated /Un:****Material(s):****Test Method:****Friction Measured?** ☐ **Wear Type:****Application Areas:** refrigerating equipment**Special Environments:****Other Comments:**

Standard No: DIN 946**Date:** 1991**Title:** Determination of Coefficient of Friction of Bolts & Nut Assemblies Under Specified Conditions**Lubricated /Un:** **Material(s):** metals or alloys**Test Method:****Friction Measured?** ☒ **Wear Type:****Application Areas:** bolts and nut assemblies, coefficient of friction**Special Environments:****Other Comments:****Standard No:** DIN EN 1152**Date:** 1994**Title:** Guards for Power Take-Off (PTO) Drive Shafts on Tractors and Machinery for Agriculture and Forestry - Wear and Strength Tests**Lubricated /Un:** **Material(s):****Test Method:****Friction Measured?** ☐ **Wear Type:****Application Areas:** guards for power take-off (PTO) drive shafts, wear**Special Environments:****Other Comments:** Identical to EN 1152**Standard No:** DIN EN 530**Date:** 1995**Title:** Abrasion Resistance of Protective Clothing Material - Test Methods**Lubricated /Un:** U **Material(s):** textiles, fabrics**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** protective clothing, abrasion resistance**Special Environments:****Other Comments:****Standard No:** DIN EN 60068 PT2-70**Date:** 1996**Title:** Environmental Testing - Tests - Test XB. Abrasion of Markings and Letterings Caused by Rubbing of Fingers and Hands**Lubricated /Un:** U **Material(s):** printed surfaces**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** printed surfaces, abrasion by rubbing of hands**Special Environments:****Other Comments:** Identical to EN 60068 PT2-70, IEC 68 PT2-70**Standard No:** DIN ISO 6370 PT1**Date:** 1991**Title:** Vitreous and Porcelain Enamels - Determination of the Resistance to Abrasion - Abrasion Testing Apparatus**Lubricated /Un:** U **Material(s):** ceramics, enamels**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** enamels, vitreous and porcelain**Special Environments:****Other Comments:** Identical to ISO 6370/1-

Standard No: DIN ISO 6370 PT2**Date:** 1995**Title:** Vitreous and Porcelain Enamels - Determination of the Resistance to Abrasion - Loss in Mass after Sub-Surface Abrasion**Lubricated /Un:** U**Material(s):** ceramics, enamels**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** enamels, vitreous and porcelain, sub-surface abrasion**Special Environments:****Other Comments:** Identical to ISO 6370/2-**Standard No:** DIN ISO 7148 PT1**Date:** 1987**Title:** Plain Bearings; Testing of the Friction and Wear Behaviour of Bearing Material/Mating Material/Oil Combinations Under Conditions of Boundary Lubrication**Lubricated /Un:** L**Material(s):****Test Method:****Friction Measured?** ☒ **Wear Type:****Application Areas:** bearings, friction and wear tests**Special Environments:****Other Comments:** Identical to ISO 7148/1-**Country:** International**CEN:** Comite Europeen de Normalisation**Standard No:** EN 102**Date:** 1991**Title:** Ceramic Tiles - Determination of Resistance to Deep Abrasion - Unglazed Tiles**Lubricated /Un:** U**Material(s):** ceramics**Test Method:** rotating disc with abrasive material**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** ceramic floor and wall tiles, abrasion resistance**Special Environments:****Other Comments:** Identical to BS 6431: PT14(1983), DIN EN 102, NBN EN 102, NEN EN 102, NF E**Standard No:** EN 1097 PT1**Date:** 1996**Title:** Tests for Mechanical and Physical Properties of Aggregates - Determination of the Resistance to Wear (Micro-Deval)**Lubricated /Un:** U**Material(s):** aggregate**Test Method:** micro deval wear test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** aggregates**Special Environments:****Other Comments:** Identical to BS EN 1097 PT 1, DIN EN 1097 PT1, NF EN 1097-1

Standard No: EN 1152**Date:** 1994**Title:** Tractors and Machinery for Agriculture and Forestry - Guards for Power Take Off (PTO) Drive Shafts - Wear and Strength Tests**Lubricated /Un:** **Material(s):****Test Method:****Friction Measured?** ☐ **Wear Type:****Application Areas:** guards for power take-off (PTO) drive shafts, wear**Special Environments:****Other Comments:** Identical to BS EN 1152, DIN EN 1152, NBN EN 1152, NEN EN 1152, NF EN 115**Standard No:** EN 154**Date:** 1991**Title:** Ceramic Tiles - Determination of Resistance to Surface Abrasion - Glazed Tiles**Lubricated /Un:** U **Material(s):** ceramics**Test Method:** rotating abrasive load**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** ceramic floor and wall tiles, abrasion resistance**Special Environments:****Other Comments:** Identical to BS 6431: PT20(1984), DIN EN 154, NBN EN 154, NEN EN 154, NF E**Standard No:** EN 530**Date:** 1994**Title:** Abrasion Resistance of Protective Clothing Material - Test Methods**Lubricated /Un:** U **Material(s):** textiles, fabrics**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** protective clothing, abrasion resistance**Special Environments:****Other Comments:** Identical to BS EN 530, DIN EN 530, NBN EN 530, NEN EN 530, NF EN 530, UNI**Standard No:** EN 60068 PT2-70**Date:** 1996**Title:****Lubricated /Un:** U **Material(s):** printed surfaces**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** printed surfaces, abrasion by rubbing of hands**Special Environments:****Other Comments:** Identical to BS EN 60068 PT2-70; DIN EN 60068 PT2-70; IEC 68 PT2-70; NF EN 6**IEC: International Electrotechnical Committee**

Standard No: IEC 648**Date:** 1979**Title:** Method of Test for Coefficients of Friction of Plastic Film and Sheeting for Use as Electrical Insulation**Lubricated /Un:** U**Material(s):** plastic film and sheeting**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** electrical insulation, coefficient of friction**Special Environments:****Other Comments:** Identical to BS 5961 (1980), NEN NPR 10648, NFC 26-251**Standard No:** IEC 68 PT2-70**Date:** 1995**Title:** Environmental Testing - Tests - Test XB. Abrasion of Markings and Letterings Caused by Rubbing of Fingers and Hands**Lubricated /Un:** U**Material(s):** printed surfaces**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** printed surfaces, abrasion by rubbing of hands**Special Environments:****Other Comments:** Identical to BS EN 60068 PT2-70, DIN EN 60068 PT2-70, EN 60068 PT2-70, NEN**ISO: International Standards Organisation****Standard No:** ISO 3537-**Date:** 1993**Title:** Road Vehicles - Safety Glasses - Test Methods for Mechanical Properties**Lubricated /Un:** U**Material(s):** glass**Test Method:** abrasive wheel**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** glass for road vehicles, abrasion testing**Special Environments:****Other Comments:** Similar to DIN 52347**Standard No:** ISO 4649-**Date:** 1985**Title:** Rubber - Determination of Abrasion Resistance Using a Rotating Cylindrical Drum Device**Lubricated /Un:** U**Material(s):** plastics, rubber**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** rubber, abrasion**Special Environments:****Other Comments:** Similar to BS 903 PTA9, DIN 53516, NFT 46-012, NFT 51-115, UNI 9185

Standard No: ISO 6370/1-**Date:** 1991**Title:** Vitreous and Porcelain Enamels - Determination of the Resistance to Abrasion - Abrasion Testing Apparatus**Lubricated /Un:** U**Material(s):** ceramics, enamels**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** enamels, vitreous and porcelain**Special Environments:****Other Comments:** Identical to DIN ISO 6370 PT1**Standard No:** ISO 6601-**Date:** 1987**Title:** Plastics - Friction and Wear by Sliding - Identification of Test Parameters**Lubricated /Un:** U**Material(s):** plastics**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastics, friction and wear by sliding**Special Environments:****Other Comments:** Identical to NEN ISO 6601**Standard No:** ISO 7148/1**Date:** 1985**Title:** Plain Bearings- Testing of the Friction and Wear Behaviour of Bearing Material / Mating Material / Oil Combinations Under Conditions of Boundary Lubrication**Lubricated /Un:** L**Material(s):****Test Method:****Friction Measured?** ☒ **Wear Type:****Application Areas:** bearings, friction and wear tests**Special Environments:****Other Comments:** Identical to DIN ISO 7148 PT1, NF ISO 7148-1, UNI ISO 7148/1**Standard No:** ISO 7176/13-**Date:** 1989**Title:** Wheelchairs - Determination of Coefficient of Friction of Test Surfaces**Lubricated /Un:** U**Material(s):** concrete, floors**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** wheelchairs, coefficient of friction of floor surfaces**Special Environments:****Other Comments:** Identical to AS 3696.13, CSA Z323.4.9, NF ISO 7176-13**Standard No:** ISO 7881-**Date:** 1987**Title:** Road Vehicles Brake Linings - Evaluation of Friction Material Characteristics - Small Sample Bench Test Procedure**Lubricated /Un:** U**Material(s):** brake linings**Test Method:** small sample bench test**Friction Measured?** ☒ **Wear Type:****Application Areas:** road vehicles brake linings**Special Environments:****Other Comments:** Identical to UNI ISO 7881

Standard No: ISO 8251 - **Date:** 1987

Title: Anodised Aluminium and Aluminium Alloys - Measurement of Wear Resistance and Wear Index of Anodic Oxidation Coatings with an Abrasive Wheel Wear Test Apparatus

Lubricated /Un: **Material(s):** anodic oxidation coating

Test Method: abrasive wheel

Friction Measured? ☐ **Wear Type:** abrasion

Application Areas: oxide coatings on Al and alloys

Special Environments:

Other Comments: Technically equivalent to BS 6161:PT9

Standard No: ISO 8252 **Date:** 1987

Title: Anodised Aluminium and Aluminium alloys - Measurement of Mean Specific Abrasion Resistance of Anodic Oxidation Coatings with an Abrasive Jet Test Apparatus

Lubricated /Un: U **Material(s):** anodic oxidation coating, Al and Al alloys

Test Method: abrasive jet

Friction Measured? ☐ **Wear Type:** abrasion

Application Areas: anodic oxidation coatings on Al and alloys

Special Environments:

Other Comments: Technically equivalent to BS 6161:PT10 (1987)

Standard No: ISO 8295- **Date:** 1995

Title: Plastics - Film and Sheeting, Determination of the Coefficients of Friction

Lubricated /Un: U **Material(s):** plastic films, coatings

Test Method:

Friction Measured? ☒ **Wear Type:** sliding wear

Application Areas: plastic films, friction test for

Special Environments:

Other Comments: Similar to DIN 53375, Identical to BS 2782 PT8, NEN ISO 8295, SS ISO 8295

Standard No: ISO 9326- **Date:** 1989

Title: Implants for Surgery - Partial and Total Hip Joint Prostheses - Guidance for Laboratory Evaluation of Change of Form of Bearing Surfaces

Lubricated /Un: L: serum **Material(s):**

Test Method: hip joint simulator

Friction Measured? ☐ **Wear Type:**

Application Areas: hip joint prostheses, evaluation

Special Environments:

Other Comments: Identical to BS 7251 PT8, NFS 90-441

Standard No: ISO 9352 - **Date:** 1995

Title: Plastics - Determination of Resistance to Wear by Abrasive Wheels

Lubricated /Un: **Material(s):** plastics

Test Method: abrasive wheel, Taber Abrasion Test

Friction Measured? ☐ **Wear Type:** abrasion

Application Areas:

Special Environments:

Other Comments:

Standard No: ISO TR 6281-**Date:** 1990**Title:** Plain Bearings - Testing Under Conditions of Hydrodynamic and Mixed Lubrication in Test Rigs - Guidelines**Lubricated /Un:** L**Material(s):** no specific material mentioned**Test Method:** guidelines**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** bearings**Special Environments:****Other Comments:** Corresponds to DIN 50280**Country:** Italy**UNI:** Ente Nazionale Italiano de Unificazione**Standard No:** UNI ISO 7148/1**Date:** 1988**Title:** Plain Bearings-Testing of the Friction and Wear Behaviour of Bearing Material/Mating Material/Oil Combinations Under Conditions of Boundary Lubrication**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:****Friction Measured?** ☒ **Wear Type:****Application Areas:** bearings, friction and wear tests**Special Environments:****Other Comments:** Identical to ISO 7148/1-**Standard No:** UNI ISO 7881**Date:** 1990**Title:** Road Vehicles - Brake Linings - Evaluation of Friction Material Characteristics - Small Sample Bench Test Procedure**Lubricated /Un:** U**Material(s):** brake linings**Test Method:** small sample bench test**Friction Measured?** ☐ **Wear Type:****Application Areas:** road vehicles brake linings**Special Environments:****Other Comments:** Identical to ISO 7881-**Country:** Japan**JIS:** Japanese Agency of International Science and Technology, Standards Department**Standard No:** JIS-A1120**Date:** 1976**Title:** Method of Test for Abrasion of Coarse Aggregate by Use of the Deval Machine**Lubricated /Un:** U**Material(s):** aggregate**Test Method:** Deval machine**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** aggregate, coarse, abrasion**Special Environments:****Other Comments:** CANCELLED 1993

Standard No: JIS-A1121**Date:** 1993**Title:** Method of Test for Abrasion of Coarse Aggregate by Use of the Los Angeles Machine**Lubricated /Un:** U**Material(s):** aggregate**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** aggregate, coarse, abrasion**Special Environments:****Other Comments:**

Standard No: JIS-A1451**Date:** 1994**Title:** Methods of Abrasion Test for Building Materials & Part of Building Construction (method of Abrasion Test for Flooring Materials Method with Rotating Disk Fitted Friction & Impact)**Lubricated /Un:** U**Material(s):** building materials**Test Method:** rotating disc fitted friction and impact**Friction Measured?** ☐ **Wear Type:** abrasion, impact**Application Areas:** flooring materials, abrasion and impact resistance**Special Environments:****Other Comments:**

Standard No: JIS-A1452**Date:** 1972**Title:** Method of Abrasion Test for Building Materials and Part of Building Construction (Falling Sand Method)**Lubricated /Un:** U**Material(s):** building materials**Test Method:** falling sand**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** building materials, abrasion resistance**Special Environments:****Other Comments:**

Standard No: JIS-A1453**Date:** 1973**Title:** Method of Abrasion Test for Building Materials and Part of Building Construction (Abrasive-Paper Method)**Lubricated /Un:** U**Material(s):** building materials**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** rolling contact, abrasion**Application Areas:** building material abrasion**Special Environments:****Other Comments:**

Standard No: JIS-B1186**Date:** 1995**Title:** Sets of High Strength Hexagon Bolt, Hexagon Nut, and Plain Washers for Friction Grip Joints**Lubricated /Un:** U**Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:****Application Areas:****Special Environments:****Other Comments:**

Standard No: JIS-H8682**Date:** 1993**Title:** Test Methods for Abrasion Resistance of Anodic Oxidation Coatings on Aluminium and Aluminium Alloys**Lubricated /Un:** U**Material(s):** anodic oxidation coating, Al and Al alloys**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** anodic oxidation coatings Al and alloys**Special Environments:****Other Comments:****Standard No:** JIS-K2519**Date:** 1995**Title:** Testing Methods for Load-Carrying Capacity of Lubricating Oil**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding or rolling contact**Application Areas:** lubricants, load carrying capacity**Special Environments:****Other Comments:** related to ASTM D2782, D2509**Standard No:** JIS-K6894**Date:** 1996**Title:** Polytetrafluoroethylene Coated Dry Film**Lubricated /Un:** L**Material(s):** coatings, metals or alloys**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:** related to ASTM D1526**Standard No:** JIS-K7125**Date:** 1987**Title:** Testing Method for Static and Kinetic Coefficients of Friction of Plastic Film and Sheet**Lubricated /Un:** U**Material(s):** plastics**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastic film and sheeting, abrasion**Special Environments:** elevated temperatures**Other Comments:** related to an ISO standard**Standard No:** JIS-K7204**Date:** 1995**Title:** Testing Method for Abrasion Resistance of Plastics by Abrasive Wheels**Lubricated /Un:** U**Material(s):** plastics**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** abrasion**Application Areas:** plastics, abrasion by wheels**Special Environments:****Other Comments:**

Standard No: JIS-K7205**Date:** 1995**Title:** Testing Method for Abrasion Resistance of Plastics by Abrasive**Lubricated /Un:** U**Material(s):** plastics**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** solid erosion, abrasion**Application Areas:** plastics, abrasion**Special Environments:** elevated temperatures**Other Comments:**

Standard No: JIS-K7218**Date:** 1986**Title:** Testing Method for Sliding Wear Resistance of Plastics**Lubricated /Un:** U**Material(s):** plastics**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastics, sliding wear of**Special Environments:****Other Comments:**

Standard No: JIS-L0849**Date:** 1996**Title:** Testing Method for Colour Fastness to Rubbing**Lubricated /Un:** U**Material(s):** cotton textiles**Test Method:** scuffing test**Friction Measured?** ☐ **Wear Type:** scuffing**Application Areas:** textiles, colour fastness test**Special Environments:****Other Comments:**

Standard No: JIS-M2501**Date:** 1975**Title:** Friction Properties**Lubricated /Un:** U**Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:****Application Areas:** friction properties of materials**Special Environments:****Other Comments:**

Standard No: JIS-P8147**Date:** 1994**Title:** Method of Determining Coefficient of Friction of Paper and Board**Lubricated /Un:** U**Material(s):** paper, board**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** fretting**Application Areas:** paper and board, friction of**Special Environments:****Other Comments:**

Standard No: JIS-Z2141**Date:** 1978**Title:** Method of Abrasion Test for Wood**Lubricated /Un:** U**Material(s):** wood**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** wood, abrasion test**Special Environments:****Other Comments:****Standard No:** JIS-Z2141**Date:** 1978**Title:** Method of Abrasion Test for Wood**Lubricated /Un:** U**Material(s):** wood**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** fretting**Application Areas:** wood, abrasion test for**Special Environments:****Other Comments:****Country:** Netherlands**NEN:** Nederlands Normalisatie-Instituut**Standard No:** NEN ISO 6601**Date:** 1990**Title:** Plastics - Friction and Wear by Sliding - Identification of Test Parameters**Lubricated /Un:** U**Material(s):** plastics**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastics, friction and wear by sliding**Special Environments:****Other Comments:** Identical to ISO 6601-**Standard No:** NEN NPR 10648**Date:** 1981**Title:** Method of Test for Coefficients of Friction of Plastic Film and Sheeting for Use as Electrical Insulation**Lubricated /Un:** U**Material(s):** plastic film and sheeting**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** electrical insulation, coefficient of friction**Special Environments:****Other Comments:** Identical to IEC 648**Country:** Poland**Poland (PN)**

Standard No: PN-67/M-04306 (1967)**Date:** 1967**Title:** Wear Resistance Test of Metals on the Skoda-Savine Machine**Lubricated /Un:** **Material(s):** metals or alloys**Test Method:** Skoda-Savine machine**Friction Measured?** ☐ **Wear Type:****Application Areas:** metals**Special Environments:****Other Comments:**

Standard No: PN-70/M-04307 (1970)**Date:** 1970**Title:** The Determination of the Coefficient of Friction**Lubricated /Un:** **Material(s):****Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** friction coefficient, determining the**Special Environments:****Other Comments:**

Standard No: PN-75/M-04308 (1975)**Date:** 1975**Title:** The Determination of the Wear Resistance of Metals on the Falex Machine**Lubricated /Un:** **Material(s):****Test Method:** Falex machine**Friction Measured?** ☐ **Wear Type:****Application Areas:** metals**Special Environments:****Other Comments:**

Standard No: PN-79/H-04329 (1979)**Date:** 1979**Title:** Wear Resistance Test of Metals or Their Diffusion Layers During Sliding Friction at Increasing Unit Pressure on the Amsler Machine**Lubricated /Un:** **Material(s):** metals or alloys**Test Method:** Amsler machine**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** metals**Special Environments:****Other Comments:**

Standard No: PN-81/H-04328 (1981)**Date:** 1981**Title:** The Friction Test in the Presence of an Abrasive Layer**Lubricated /Un:** **Material(s):****Test Method:****Friction Measured?** ☒ **Wear Type:** abrasion**Application Areas:** friction testing, with an abrasive layer**Special Environments:****Other Comments:**

Standard No: PN-82/H-04332 (1982)**Date:** 1982**Title:** Wear Resistance Test of Metals or Their Diffusion Layers during Sliding Friction at Constant Pressure on the Amsler Machine**Lubricated /Un:** **Material(s):** metals or alloys**Test Method:** Amsler machine**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** metals**Special Environments:****Other Comments:****Standard No:** PN-83/H-04302 (1983)**Date:** 1983**Title:** The Friction Test in a Three-Rollers-Cone System**Lubricated /Un:** **Material(s):****Test Method:** three-rollers-cone**Friction Measured?** ☒ **Wear Type:****Application Areas:** friction testing, three-roller and cone**Special Environments:****Other Comments:****Standard No:** PN-88/H-04337 (1988)**Date:** 1988**Title:** The Antiseizability Test on the Amsler Machine**Lubricated /Un:** **Material(s):****Test Method:** Amsler machine**Friction Measured?** ☐ **Wear Type:****Application Areas:****Special Environments:****Other Comments:****Country:** Sweden**SS:** Standardiserings-Kommissionen I Sverige**Standard No:** SS 22 72 10**Date:** 1983**Title:** Paving Products - Abrasion Test**Lubricated /Un:** U**Material(s):** construction materials**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paving products, abrasion**Special Environments:****Other Comments:****Country:** UK**BSI:** British Standards Institute

Standard No: 92/54597/DC, Draft**Date:** 1992**Title:** BS3900 Methods of Test for Paints. New Part E13: Determination of Resistance to Abrasion by the Abrasive Paper Method**Lubricated /Un:** U**Material(s):** coatings, paints**Test Method:** abrasive paper**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paint, resistance to abrasion**Special Environments:****Other Comments:** BS 3900

Standard No: 93/104822 DC, Draft**Date:** 1993**Title:** EN 1097 Tests for Mechanical and Physical Properties of Aggregates - Part 2: Determination of the Resistance to Wear (Micro-Deval)**Lubricated /Un:** U**Material(s):** aggregate**Test Method:** micro deval wear test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** aggregates**Special Environments:****Other Comments:**

Standard No: 94/108070 DC, Draft**Date:** 1994**Title:** EN 1097 Tests for Mechanical and Physical Properties of Aggregates - Part 10: Method for the Determination of the Resistance to Wear by Abrasion from Studded Tyres: Nordic Test**Lubricated /Un:** U**Material(s):** aggregate**Test Method:** Nordic test, studded tyres**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** aggregate wear by studded tyres**Special Environments:****Other Comments:** EN 1097

Standard No: 94/304241 DC, Draft**Date:** 1994**Title:** Revision of ISO 8295 Plastics - Film and Sheeting - Determination of Coefficients of Friction**Lubricated /Un:****Material(s):** plastic film, friction test for**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastic film and sheeting**Special Environments:****Other Comments:** Revision of ISO 8295

Standard No: 94/307255 DC, Draft**Date:** 1994**Title:** EN 1554 Conveyor Belts - Drum Friction Testing**Lubricated /Un:****Material(s):****Test Method:** drum friction testing**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** conveyor belts**Special Environments:****Other Comments:** EN 1554

Standard No: 94/714026 DC, Draft**Date:** 1994**Title:** Revision of ISO 7148 Plain Bearings - Testing of the Tribological Behaviour of Bearing Materials - Part 1: Testing of Metallic Bearing Materials**Lubricated /Un:** **Material(s):** metals or alloys**Test Method:****Friction Measured?** ☐ **Wear Type:****Application Areas:** bearing materials**Special Environments:****Other Comments:****Standard No:** 95/105502, Draft**Date:** 1995**Title:** ISO/DIS 10545-17 Ceramic Tiles - Part 17: Determination of Coefficient of Friction**Lubricated /Un:** **Material(s):** ceramic tiles**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** ceramic tiles, coefficient of friction**Special Environments:****Other Comments:** ISO/DIS 10545-17**Standard No:** 95/120402 DC, Draft**Date:** 1995**Title:** BS 3900 Methods of Test for Paints. Part E17: Determination of Resistance to Abrasion - Rotating Rubber Wheel Method**Lubricated /Un:** U **Material(s):** coatings, paints**Test Method:** rotating rubber wheel**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paint, resistance to abrasion**Special Environments:****Other Comments:** BS 3900**Standard No:** 95/120403 DC, Draft**Date:** 1995**Title:** BS3900 Methods of Test for Paints. Part E18: Determination of Resistance to Abrasion - Reciprocating Test Panel Method**Lubricated /Un:** U **Material(s):** coatings, paints**Test Method:** reciprocating**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paint, resistance to abrasion**Special Environments:****Other Comments:** BS 3900**Standard No:** 95/124796 DC, Draft**Date:** 1995**Title:** EN ISO 13427 Geotextiles and Geotextile-related Products - Method of Abrasion Damage Simulation (Sliding Block Test)**Lubricated /Un:** U **Material(s):** geotextiles**Test Method:** sliding block test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** textiles/geotextiles, abrasion resistance**Special Environments:****Other Comments:** EN ISO 13427

Standard No: 96/122202 DC, Draft**Date:** 1996**Title:** Revision of ISO 4649 Rubber - Determination of Abrasion Resistance Using a Rotating Drum Device**Lubricated /Un:** U**Material(s):** rubber**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** rubber, abrasion resistance**Special Environments:****Other Comments:**

Standard No: 97/700653 DC, Draft**Date:** 1997**Title:** EN 3745-511 Aerospace Series - Fibres and Cables, Optical Aircraft Use - Test Methods - Part 511: Cable to Cable Abrasion**Lubricated /Un:** U**Material(s):** metals or alloys, aircraft cables**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** cable-to-cable abrasion**Special Environments:****Other Comments:**

Standard No: BS 1016:PT111**Date:** 1993**Title:** Methods for Analysis and Testing of Coal and Coke - Determination of Abrasion Index of Coal**Lubricated /Un:** U**Material(s):** coal and coke**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** coal and coke, abrasion index**Special Environments:****Other Comments:**

Standard No: BS 1344:PT4**Date:** 1990**Title:** Methods of Testing Vitreous Enamel Finishes - Resistance to Abrasion**Lubricated /Un:** U**Material(s):** vitreous enamel coatings**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** vitreous enamel finishes, abrasion resistance**Special Environments:****Other Comments:**

Standard No: BS 3900:PTE14(1997)**Date:** 1997**Title:** Methods of Test for Paints - Determination of Resistance to Abrasion (Rotating Abrasive-Paper-Covered Wheel)**Lubricated /Un:** U**Material(s):** coatings, paints**Test Method:** abrasive paper**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paint, resistance to abrasion**Special Environments:****Other Comments:** Identical to ISO 7784/1-

Standard No: BS 3900:PTE15(1997)**Date:** 1997**Title:** Methods of Test for Paints - Determination of Resistance to Abrasion (Rotating Abrasive Rubber Wheel)**Lubricated /Un:** U**Material(s):** coatings, paints**Test Method:** rubber wheel**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paint, resistance to abrasion**Special Environments:****Other Comments:** Identical to ISO 7784/2-**Standard No:** BS 5131:PT3:SEC3.6**Date:** 1991**Title:** Methods of Test for Footwear and Footwear Materials - Uppers, Textiles and Threads - Abrasion Resistance of Shoe Laces**Lubricated /Un:** U**Material(s):** footwear materials**Test Method:** wet and dry testing**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** shoelaces, abrasion resistance**Special Environments:****Other Comments:****Standard No:** BS 5173:PT103:SEC103.9**Date:** 1986**Title:** Methods of Test for Rubber and Plastics Hoses and Hose Assemblies - Physical Tests - Determination of Abrasion Resistance of the Outer Cover**Lubricated /Un:** U**Material(s):** rubber and plastics**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** hoses, rubber /plastic, outer cover**Special Environments:****Other Comments:** Superseded by BS EN ISO 6945 (1996)**Standard No:** BS 5690**Date:** 1991**Title:** Method for Determination of Abrasion Resistance of Fabrics**Lubricated /Un:** U**Material(s):** textiles, fabrics**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** fabrics, abrasion resistance**Special Environments:****Other Comments:****Standard No:** BS 5961**Date:** 1980**Title:** Method for Determination of Coefficients of Friction of Plastic Film and Sheeting for Use as Electrical Insulation**Lubricated /Un:** U**Material(s):** plastic film and sheeting**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** electrical insulation, coefficient of friction**Special Environments:****Other Comments:** Identical to IEC 648

Standard No: BS 6161:PT9(1987)**Date:** 1987**Title:** Methods of Test for Anodic Oxidation Coatings on Aluminium and its Alloys - Measurement of Wear Properties with an Abrasive Wheel Wear Test Apparatus**Lubricated /Un:** **Material(s):** anodic oxidation coating**Test Method:** abrasive wheel**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** oxide coatings of Al and alloys**Special Environments:****Other Comments:** Technically equivalent to ISO 8251-, Replaces BS 1615:1972**Standard No:** BS 6212**Date:** 1987**Title:** Method for Determination of Tumbler Strength of Iron Ores**Lubricated /Un:** U **Material(s):** iron ores**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** iron ores, tumbler strength**Special Environments:****Other Comments:** Superseded by BS ISO 3271 (1996)**Standard No:** BS 6431:PT14**Date:** 1992**Title:** Ceramic Floor and Wall Tiles - Method for Determination of Resistance to Deep Abrasion
Unglazed Tiles**Lubricated /Un:** U **Material(s):** ceramics**Test Method:** rotating disc with abrasive material**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** ceramic floor and wall tiles, abrasion resistance**Special Environments:****Other Comments:** Identical to EN 102**Standard No:** BS 6431:PT20**Date:** 1992**Title:** Ceramic Floor and Wall Tiles - Method for Determination of Resistance to Surface Abrasion.
Glazed Tiles**Lubricated /Un:** U **Material(s):** ceramics**Test Method:** rotating abrasive load**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** ceramic floor and wall tiles, abrasion resistance**Special Environments:****Other Comments:** Identical to EN 154**Standard No:** BS 7044:PT2:SEC2.3**Date:** 1990**Title:** Artificial Sports Surfaces - Methods of Test - Determination of Durability**Lubricated /Un:** U **Material(s):** sports surfaces**Test Method:** abrasive wheels, metal blades**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** sports surfaces, durability**Special Environments:****Other Comments:**

Standard No: BS 7251:PT7(1990)**Date:** 1990**Title:** Orthopaedic Joint Prostheses - Guide to Hip Joint Simulators**Lubricated /Un:** L: serum **Material(s):****Test Method:** hip joint simulator**Friction Measured?** ☐ **Wear Type:****Application Areas:** hip joint prostheses, evaluation**Special Environments:****Other Comments:****Standard No:** BS 7251:PT8(1990)**Date:** 1990**Title:** Orthopaedic Joint Prostheses - Guide to Laboratory Evaluation of Change of Form of Bearing Surface of Hip Joint Prostheses**Lubricated /Un:** L: serum **Material(s):****Test Method:** hip joint simulator**Friction Measured?** ☐ **Wear Type:****Application Areas:** hip joint prostheses, evaluation**Special Environments:****Other Comments:** Identical to ISO 9326**Standard No:** BS AU148:PT4**Date:** 1969**Title:** Methods of Test for Motor Vehicle Paints - Resistance to Abrasion**Lubricated /Un:** U **Material(s):** paint, coatings**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paints on motor vehicles, abrasion resistance**Special Environments:****Other Comments:****Standard No:** BS EN 1152**Date:** 1995**Title:** Tractors and Machinery for Agriculture and Forestry - Guards for Power Take-Off (PTO) Drive Shafts - Wear and Strength Tests**Lubricated /Un:** **Material(s):****Test Method:****Friction Measured?** ☐ **Wear Type:****Application Areas:** guards for power take-off (PTO) drive shafts, wear**Special Environments:****Other Comments:** Identical to EN 1152 and DIN EN 1152**Standard No:** BS EN 295 PT3**Date:** 1991**Title:** Vitrified Clay Pipes & Fittings and Pipe Joints for Drains and Sewers - Test Methods**Lubricated /Un:** U **Material(s):** clay**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** pipes, clay fittings and joints for drains/sewers**Special Environments:****Other Comments:**

Standard No: BS EN 530**Date:** 1995**Title:** Abrasion Resistance of Protective Clothing Material**Lubricated /Un:** U**Material(s):** textiles, fabrics**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** protective clothing, abrasion resistance**Special Environments:****Other Comments:** Identical to EN 530

Standard No: BS EN 60068 PT2-70**Date:** 1996**Title:** Environmental Testing - Tests - Test XB. Abrasion of Markings and Letterings Caused by Rubbing of Fingers and Hands**Lubricated /Un:** U**Material(s):** printed surfaces**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** printed surfaces, abrasion by rubbing of hands**Special Environments:****Other Comments:** Identical to EN 60068 PT2-70, IEC 68 PT2-70

Standard No: BS EN ISO 6945**Date:** 1996**Title:** Rubber Hoses - Determination of Abrasion Resistance of the Outer Cover**Lubricated /Un:** U**Material(s):** rubber and plastics**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** hoses, rubber/plastic, outer cover**Special Environments:****Other Comments:** Identical to EN ISO 6945, ISO 6945-

Standard No: BS ISO 3271**Date:** 1995**Title:** Iron Ores - Determination of Tumble Strength**Lubricated /Un:** U**Material(s):** iron ores**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** iron ores, tumbler strength**Special Environments:****Other Comments:** Supersedes BS 6212 1987 Draft for comment 93/310938 DC

Standard No: BS2782:PT8:MTD824A**Date:** 1996**Title:** Methods of Testing Plastics - Other Properties - Film and Sheeting - Determination of the Coefficients of Friction**Lubricated /Un:** U**Material(s):** plastic film, coatings**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastic films, friction test for**Special Environments:****Other Comments:** Identical to ISO 8295

Institute of Petroleum UK

Standard No: IP 281 **Date:** 1988**Title:** Determination of the Anti-Wear Properties of Hydraulic Fluids - Vane Pump Method**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** vane pump test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubricant characterisation, hydraulic fluids**Special Environments:****Other Comments:** Related to DIN 51389

Standard No: IP 334 **Date:** 1993**Title:** Determination of Load Carrying Capacity of Lubricants - FZG Gear Machine Method**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** FZG gear rig test**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** gears, lubricant characterisation**Special Environments:****Other Comments:** Related to DIN 51354 PT2

Standard No: IP166 **Date:** 1983**Title:** Load Carrying Capacity for Oils - IEA Gear Machine**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** gear testing rig**Friction Measured?** ☐ **Wear Type:** scuffing/scoring**Application Areas:** oils, load carrying capacity**Special Environments:****Other Comments:**

Standard No: IP239 **Date:** 1985**Title:** Extreme Pressure Properties: Friction and Wear Tests for Lubricants: Four-Ball Machine**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** four-ball test**Friction Measured?** ☐ **Wear Type:** seizure, welding**Application Areas:****Special Environments:****Other Comments:**

Standard No: IP240**Date:** 1984**Title:** Standard Method for Measurement of Extreme Pressure Properties of Lubricating Grease/
Lubricating Fluids (Timken Method)**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:****Application Areas:** oils, extreme pressure**Special Environments:****Other Comments:** same as ASTM D-2782

Standard No: IP326**Date:** 1988**Title:** Standard Method for Measurement of Extreme Pressure Properties of Lubricating Grease/
Lubricating Fluids (Timken Method)**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:****Application Areas:** greases, extreme pressure**Special Environments:****Other Comments:** same as ASTM D-2509

Country: USA

American Association of Railroads

Standard No: MSRPB 116**Date:****Title:** Standard Limit of Wear Gages for Condemning Wheel Gages**Lubricated /Un:** U **Material(s):** metals or alloys**Test Method:** hardware test**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:****Special Environments:****Other Comments:**

Standard No: MSRPB 53**Date:****Title:** Standard for Limit of Wear Gages for Journal Box Hinge Pin, Hinge Pin Holes and Wedge Seat
in Ceiling or Box**Lubricated /Un:** U&L **Material(s):** metals or alloys**Test Method:** hardware test**Friction Measured?** ☐ **Wear Type:** sliding wear, impact wear**Application Areas:** journal box, railroad**Special Environments:****Other Comments:**

Standard No: MSRPB 54

Date:

Title: Standard Limit of Wear Gage for Hinge Lub Journal Boxes C, D, E and F

Lubricated /Un: U&L

Material(s): metals or alloys

Test Method: hardware test

Friction Measured? ☐ **Wear Type:** sliding wear, impact wear

Application Areas: journal box, railroad

Special Environments:

Other Comments:

Standard No: MSRPB 97

Date:

Title: Standard Gages for Checking the Limit of Wear and Condemning from Service the Operating Parts of Universal Control

Lubricated /Un: U

Material(s): metals or alloys

Test Method: hardware test

Friction Measured? ☐ **Wear Type:** sliding wear

Application Areas:

Special Environments:

Other Comments:

Standard No: MSRPE 30

Date:

Title: Limiting Contour of Face of Brake Heads for Metal and Low Friction Composition Brake Shoes

Lubricated /Un: U

Material(s): metals or alloys, brake shoe materials

Test Method:

Friction Measured? ☐ **Wear Type:** sliding wear

Application Areas: brake shoes, railroad

Special Environments:

Other Comments:

Standard No: MSRPE 36

Date:

Title: Standard Limiting Contour of Brake Shoes High Friction Composition Type

Lubricated /Un: U

Material(s): brake shoe materials

Test Method: hardware test

Friction Measured? ☐ **Wear Type:** sliding wear

Application Areas: brake shoes, railroad

Special Environments:

Other Comments:

American Association of State Highway Officials

Standard No: AASHO M261 (1987)**Date:** 1987**Title:** Standard Tyre for Pavement Frictional Property Tests**Lubricated /Un:** U**Material(s):** rubber**Test Method:** tyre testing**Friction Measured?** ☒ **Wear Type:** sliding or rolling contact**Application Areas:** tyre for use in testing, friction**Special Environments:****Other Comments:** ASTM has similar standard

Standard No: AASHO M286 (1981)**Date:** 1981**Title:** Standard Specification for Smooth Tread Standard Tyre for Special Purpose and Frictional Property Tests**Lubricated /Un:** U**Material(s):** rubber**Test Method:** pavement testing**Friction Measured?** ☒ **Wear Type:** sliding or rolling contact**Application Areas:** tyre for use in testing, friction**Special Environments:****Other Comments:**

Standard No: AASHO T242 (1980)**Date:** 1980**Title:** Standard Method of Testing Frictional Properties of Paved Surfaces Using a Full-Scale Tyre**Lubricated /Un:** U**Material(s):** paved surfaces**Test Method:****Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** highway paving, friction**Special Environments:****Other Comments:**

Standard No: AASHO T3**Date:****Title:** Standard Method of Test for Abrasion of Stone or Slag by Use of the Deval Machine**Lubricated /Un:** U**Material(s):** stone, slag**Test Method:** Deval machine**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** highway paving**Special Environments:****Other Comments:**

Standard No: AASHO T4**Date:****Title:** Standard Method of Test for Abrasion of Gravel by Use of the Deval Machine**Lubricated /Un:** U**Material(s):** gravel**Test Method:** Deval machine**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** highway paving, gravel, roadway**Special Environments:****Other Comments:**

American Association of Textile Chemists and Colourists

Standard No: AATCC 119**Date:****Title:** Colour Change of Fabrics due to Flat Abrasion - (Frosting) Screen Wire Method**Lubricated /Un:** U**Material(s):** textiles**Test Method:** screen wire method**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** fabrics, colour change**Special Environments:****Other Comments:**

Standard No: AATCC 120**Date:****Title:** Emery Method of Colour Change in Fabrics Due to Flat Abrasion (Frosting)**Lubricated /Un:** U**Material(s):** textiles**Test Method:** abrasive paper**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** fabrics, colour change**Special Environments:****Other Comments:**

Standard No: AATCC 93**Date:****Title:** Accelerator Method of Abrasion Resistance of Fabrics**Lubricated /Un:** U**Material(s):** textiles**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** fabrics**Special Environments:****Other Comments:**

American Concrete Institute

Standard No: ACI 52-18**Date:****Title:** Standard for Erosion Resistance of Concrete in Hydraulic Structures**Lubricated /Un:** U**Material(s):** concrete**Test Method:** general product test**Friction Measured?** ☐ **Wear Type:** liquid erosion**Application Areas:****Special Environments:****Other Comments:**

American Gear Manufacturers Association

Standard No: AGMA 110.03**Date:****Title:** Nomenclature of Gear-Tooth Wear and Failure**Lubricated /Un:** U&L**Material(s):** metals or alloys**Test Method:** terminology**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** gears, tooth damage on, atlas of wear**Special Environments:****Other Comments:** ANSI B6.12

American National Standards Institute

Standard No: ANSI B74.8**Date:****Title:** Standard Ball Mill Test for Friability of Abrasive Grains**Lubricated /Un:** U**Material(s):** abrasive grains**Test Method:** grinding/polishing**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** friability of grains**Special Environments:****Other Comments:****Standard No:** ANSI PH4.35**Date:****Title:** Standard for Determining the Resistance of Photographic Films to Abrasion During Processing**Lubricated /Un:** U**Material(s):** film**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** photographic films, abrasion of**Special Environments:****Other Comments:****Standard No:** ANSI X3.112 (1984)**Date:**

1984

Title: Standard for Low Surface Friction, Magnetic Storage Disk**Lubricated /Un:** U**Material(s):** magnetic media**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** magnetic media, memory storage, friction**Special Environments:****Other Comments:**

American Railway Engineering Association

Standard No: 108**Date:****Title:** Recommended Limits of Wear for Tools to be Reclaimed**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** hardware test**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:****Special Environments:****Other Comments:**

Standard No: 35**Date:****Title:** Recommended Practice for Prevention of Erosion**Lubricated /Un:** U**Material(s):** metals or alloys**Test Method:****Friction Measured?** ☐ **Wear Type:** solid erosion**Application Areas:** railway rails**Special Environments:****Other Comments:**

American Society of Agricultural Engineers

Standard No: ASAE D242.1**Date:****Title:** Friction Coefficients of Chopped Forages**Lubricated /Un:** U**Material(s):** agricultural products**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** chopped forages, friction**Special Environments:****Other Comments:**

Standard No: ASAE D242.1a**Date:****Title:** Friction Coefficients of Grains**Lubricated /Un:** U**Material(s):** cereal grains**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** cereal grains, friction**Special Environments:****Other Comments:**

Association of the Non-Woven Fabrics Industry

Standard No: DA 20.0**Date:****Title:** Test Method for Abrasion Resistance of Disposable Soft Goods**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** soft goods, abrasion resistance of**Special Environments:****Other Comments:**

ASTM: American Society for Testing and Materials

Standard No: ASTM B 460 (Discontinued 1992)**Date:****Title:** Standard Test for Dynamic Coefficient of Friction and Wear of Sintered Metal Friction Materials Under Dry Conditions**Lubricated /Un:** U**Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** sintered metallic materials, friction**Special Environments:****Other Comments:** DISCONTINUED 1992

Standard No: ASTM B 461 (Discontinued 1992)**Date:****Title:** Standard Method for Testing Frictional Characteristics of Sintered Metal Friction Materials Run in Lubricants**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** lubrication of sintered metallic materials**Special Environments:****Other Comments:** DISCONTINUED 1992

Standard No: ASTM B 526 (Discontinued 1992)**Date:****Title:** Standard Test Method for Coefficient of Friction and Wear of Sintered Metal Friction Materials Under Dry Clutch Conditions**Lubricated /Un:** U**Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** clutch, friction**Special Environments:****Other Comments:** DISCONTINUED 1992

Standard No: ASTM B 559**Date:****Title:** Test method for dynamic coefficient of friction and wear of sintered metal friction materials under dry conditions**Lubricated /Un:** U**Material(s):** metals or alloys, friction materials**Test Method:****Friction Measured?** ☐ **Wear Type:****Application Areas:** metal friction materials**Special Environments:****Other Comments:** DISCONTINUED 1992**Standard No:** ASTM B 611-85 (1991)**Date:** 1991**Title:** Standard Test Method for Abrasive Wear Resistance of Cemented Carbides**Lubricated /Un:** U**Material(s):** cemented carbides**Test Method:** steel wheel/ abrasive slurry**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** cemented carbides, abrasion**Special Environments:****Other Comments:****Standard No:** ASTM B 794-93**Date:** 1994**Title:** Standard Test Method for Durability Wear Testing of Separable Electrical Connector Systems Using Electrical Resistance Measurements**Lubricated /Un:** U**Material(s):** metals or alloys**Test Method:** component test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** connector, wear effect on electrical properties**Special Environments:****Other Comments:****Standard No:** ASTM C 1027-84 (reapproved 1990)**Date:** 1990**Title:** Standard Test Method for Determining Visible Abrasion Resistance of Glazed Ceramic Tile**Lubricated /Un:** U**Material(s):** ceramics**Test Method:** oscillating specimens, alloy balls, abrasive & water**Friction Measured?** ☐ **Wear Type:** abrasion, impact**Application Areas:** ceramic tiles, abrasion**Special Environments:****Other Comments:****Standard No:** ASTM C 1028-89**Date:** 1989**Title:** Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method**Lubricated /Un:** U**Material(s):** ceramics**Test Method:** horizontal dynamometer pull-meter**Friction Measured?** ☒ **Wear Type:** sliding wear, friction test**Application Areas:** shoe & floor, slip resistance**Special Environments:****Other Comments:**

Standard No: ASTM C 1138-89**Date:** 1990**Title:** Standard Test Method for Abrasion Resistance of Concrete (Underwater Method)**Lubricated /Un:** U**Material(s):** concrete**Test Method:** abrasion by swirling water containing solid objects**Friction Measured?** ☐ **Wear Type:** abrasion, liquid erosion**Application Areas:** concrete, underwater abrasion**Special Environments:****Other Comments:**

Standard No: ASTM C 1243-93**Date:** 1993**Title:** Standard Test Method for Relative Resistance to Deep Abrasive Wear of Unglazed Ceramic Tile by Rotating Disc**Lubricated /Un:** U**Material(s):** ceramics**Test Method:** flat against end of rotating disc, abrasive fed in**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** ceramic tile for floor covering**Special Environments:****Other Comments:**

Standard No: ASTM C 131-89**Date:** 1989**Title:** Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine**Lubricated /Un:** U**Material(s):** mineral aggregates**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** abrasion, impact, attrition, grinding**Application Areas:** highway paving, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM C 241-90**Date:** 1990**Title:** Standard Test Method for Abrasion Resistance of Stone Subjected to Foot Traffic**Lubricated /Un:** U**Material(s):** stone**Test Method:** flat-on-flat, rotating**Friction Measured?** ☐ **Wear Type:** abrasion, impact**Application Areas:** walkways, foot traffic, wear of stone, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM C 418-90**Date:** 1990**Title:** Standard Test Method for Abrasion Resistance of Concrete by Sandblasting**Lubricated /Un:** U**Material(s):** concrete**Test Method:** abrasive jet**Friction Measured?** ☐ **Wear Type:** abrasion, solid erosion**Application Areas:** construction, traffic on concrete surfaces, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM C 421-88**Date:** 1989**Title:** Standard Test Method for Tumbling Friability of Preformed Block-Type Thermal Insulation**Lubricated /Un:** U**Material(s):** thermal insulation**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** abrasion, impact**Application Areas:** thermal insulation, abrasion**Special Environments:****Other Comments:****Standard No:** ASTM C 448-88 (Reapproved 1994)**Date:** 1994**Title:** Standard Test Methods for Abrasion Resistance of Porcelain Enamels**Lubricated /Un:** U**Material(s):** porcelain enamels (ceramics)**Test Method:** oscillating specimens, alloy balls, abrasive & water**Friction Measured?** ☐ **Wear Type:** abrasion, impact**Application Areas:** porcelain enamels, surface and subsurface abrasion**Special Environments:****Other Comments:****Standard No:** ASTM C 501-84 (Reapproved 1992)**Date:** 1992**Title:** Standard Test Method for Relative Resistance to Wear of Unglazed Ceramic Tile by the Taber Method**Lubricated /Un:** U**Material(s):** ceramics**Test Method:** abrasive wheel, Taber Abrasion Test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** ceramic tiles, abrasion**Special Environments:****Other Comments:****Standard No:** ASTM C 535-89**Date:** 1989**Title:** Standard Test Method For Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine**Lubricated /Un:** U**Material(s):** mineral aggregates**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** abrasion, impact, attrition, grinding**Application Areas:** highway paving, aggregate degradation**Special Environments:****Other Comments:** similar to ASTM C131**Standard No:** ASTM C 704-94**Date:** 1994**Title:** Standard Test Method for Abrasion Resistance of Refractory Materials at Room Temperature**Lubricated /Un:** U**Material(s):** ceramics, refractory materials**Test Method:** abrasive jet**Friction Measured?** ☐ **Wear Type:** abrasion, solid erosion**Application Areas:** refractory materials in abrasive or erosive environments**Special Environments:****Other Comments:**

Standard No: ASTM C 779-89a**Date:** 1989**Title:** Standard Test Method for Abrasion Resistance of Horizontal Concrete Surfaces**Lubricated /Un:** U**Material(s):** concrete**Test Method:** revolving discs; dressing wheels; ball bearings**Friction Measured?** ☐ **Wear Type:** abrasion, impact, sliding wear**Application Areas:** concrete surface abrasion**Special Environments:****Other Comments:**

Standard No: ASTM C 808-75 (Reapproved 1995), G**Date:** 1995**Title:** Standard Guideline for Reporting Friction and Wear Test Results of Manufactured Carbon and Graphite Bearing and Seal Materials**Lubricated /Un:** U&L**Material(s):** carbon, graphite**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear, abrasion, rolling contact**Application Areas:** bearings and seal materials, carbon and graphite, friction, description of test methods**Special Environments:****Other Comments:**

Standard No: ASTM C 944-90a**Date:** 1991**Title:** Standard Test Method for Abrasion Resistance of Concrete or Mortar Surfaces by the Rotating-Cutter Method**Lubricated /Un:** U**Material(s):** concrete, mortar**Test Method:** rotating-cutter, dressing wheels**Friction Measured?** ☐ **Wear Type:** abrasion, impact**Application Areas:** highway and bridge concrete subject to traffic, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM D 1044-94**Date:** 1994**Title:** Standard Test Method for Resistance of Transparent Plastics to Surface Abrasion**Lubricated /Un:** U**Material(s):** plastics**Test Method:** abrasive wheel, Taber Abrasion Test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** plastic window materials, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM D 1242-95a**Date:** 1995**Title:** Standard Test Methods for Resistance of Plastic Materials to Abrasion**Lubricated /Un:** U**Material(s):** plastics**Test Method:** loose abrasive, abrasive cloth**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** plastic materials, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM D 1367-90**Date:** 1990**Title:** Standard Test Method for Lubrication Qualities of Graphites**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** lubricant efficiency test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubrication qualities of graphites**Special Environments:****Other Comments:**

Standard No: ASTM D 1395-74 (Discontinued 1989)**Date:** 1974**Title:** Standard Test Method for Abrasion Resistance of Clear Floor Coverings**Lubricated /Un:** U**Material(s):** coatings (wax etc.)**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** floor coatings**Special Environments:****Other Comments:** DISCONTINUED 1989

Standard No: ASTM D 1553-83 (Discontinued 1995))**Date:** 1983**Title:** Standard Methods for Analysis of Graphites Used as Lubricants**Lubricated /Un:** L**Material(s):** graphite coatings, metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubrication qualities of graphites**Special Environments:****Other Comments:** DISCONTINUED 1995

Standard No: ASTM D 1630-94**Date:** 1983**Title:** Standard Test Method for Rubber Property - Abrasion Resistance (Footwear Abrader)**Lubricated /Un:** U**Material(s):** rubber**Test Method:** abrasive paper**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** rubber compounds for soles and heels of footwear, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM D 1709-91**Date:** 1991**Title:** Standard Test Method for Impact Resistance of Plastic Film by the Free-Falling Dart Method**Lubricated /Un:** U**Material(s):** plastics**Test Method:** impact tests**Friction Measured?** ☐ **Wear Type:** impact wear**Application Areas:** plastic film, impact resistance**Special Environments:****Other Comments:**

Standard No: ASTM D 1894-95**Date:** 1995**Title:** Standard Test Method for Static and Kinetic Coefficients of Friction of Plastic Film and Sheet**Lubricated /Un:** U**Material(s):** plastics**Test Method:** sliding sled**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastic films for packaging**Special Environments:****Other Comments:**

Standard No: ASTM D 1947-93**Date:** 1993**Title:** Standard Test Method for Load-Carrying Capacity of Petroleum Oil and Synthetic Fluid Gear Lubricants**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** oil and synthetic gear lubricants, load-carrying capacity**Special Environments:****Other Comments:**

Standard No: ASTM D 2047-93**Date:** 1994**Title:** Standard Test Method for Static Coefficient of Friction of Polished-Coated Floor Surfaces as Measured by the James Machine**Lubricated /Un:** L**Material(s):** coatings (wax)**Test Method:** floor traction test, James machine**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** walkway surface and shoe material, friction**Special Environments:****Other Comments:**

Standard No: ASTM D 2132-89**Date:** 1990**Title:** Standard Test Method for Dust-and-Fog Tracking and Erosion Resistance of Electrical Insulating Materials**Lubricated /Un:** U**Material(s):** insulation material**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** solid erosion**Application Areas:** electrical wiring**Special Environments:****Other Comments:**

Standard No: ASTM D 2228-88**Date:** 1988**Title:** Standard Test Method for Rubber Property - Abrasion Resistance (Pico Abrader)**Lubricated /Un:** U**Material(s):** rubber**Test Method:** Pico tester, WC knives against rotating specimen**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** rubber compounds, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM D 2266-91**Date:** 1991**Title:** Standard Test Method for Wear Preventive Characteristics of Lubricating Grease (Four Ball Method)**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** four-ball test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** greases**Special Environments:** test at 75 C**Other Comments:****Standard No:** ASTM D 2271-94**Date:** 1994**Title:** Standard Test Method for Preliminary Examination of Hydraulic Fluids (Wear Test)**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** pressure vane pump test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** metals in hydraulic fluid**Special Environments:****Other Comments:** related to ANSI 2011.191**Standard No:** ASTM D 2303-95**Date:** 1995**Title:** Standard Test Method of Test for Liquid Contaminant, Inclined Plane Tracking and Erosion of Insulating Materials**Lubricated /Un:** U**Material(s):** insulation**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** solid erosion, impact wear**Application Areas:** electrical wiring**Special Environments:****Other Comments:****Standard No:** ASTM D 2509-93**Date:** 1993**Title:** Standard Test Method for Measurement of Load Carrying Capacity of Lubricating Grease (Timken Method)**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** cup rotating against block, Timken test**Friction Measured?** ☐ **Wear Type:** galling, seizure, scuffing**Application Areas:** lubricating greases, load-carrying capacity**Special Environments:****Other Comments:** related to IP 326**Standard No:** ASTM D 2534-88 (Reapproved 1993)**Date:** 1993**Title:** Standard Test Method for Coefficient of Kinetic Friction of Wax Coatings**Lubricated /Un:** L**Material(s):** wax, coatings**Test Method:** coated surface pulled over a second coated surface**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** petroleum wax coated articles**Special Environments:****Other Comments:**

Standard No: ASTM D 2596-93**Date:** 1993**Title:** Standard Test Method for Measurement of Extreme-Pressure Properties of Lubricating Grease (Four-Ball method)**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** four-ball test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubricating greases, load-carrying capacity**Special Environments:** temperature > 25 C**Other Comments:**

Standard No: ASTM D 2625-94**Date:** 1994**Title:** Standard Test Method for Endurance (Wear) Life and Load Carrying Capacity of Solid Film Lubricants (Falex Pin and Vee Method)**Lubricated /Un:** L**Material(s):** metals or alloys, coatings**Test Method:** falex pin and vee block**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** lubricants, dry solid film, in steel-on-steel applications**Special Environments:****Other Comments:**

Standard No: ASTM D 2670-94**Date:** 1994**Title:** Standard Test Method for Measuring Wear Properties of Fluid Lubricants (Falex Pin and Vee Block Method)**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** falex pin and vee block**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubricants, fluid**Special Environments:****Other Comments:**

Standard No: ASTM D 2714-94**Date:** 1994**Title:** Standard Test Method for Calibration and Operation of the Falex Block-on-Ring Friction and Wear Testing Machine**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** falex block-on-ring friction and wear tester**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** calibration of block-on-ring testing machine**Special Environments:****Other Comments:**

Standard No: ASTM D 2716 (Discontinued 1982)**Date:****Title:** Test Method for Coefficient of Friction and Wear Characteristics of Dry Solid Film Lubricants in Vacuum and Other Controlled Atmospheres**Lubricated /Un:** L**Material(s):** lubricant films**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** lubricants, dry film, in vacuum**Special Environments:****Other Comments:** DISCONTINUED 1982

Standard No: ASTM D 2782-94**Date:** 1994**Title:** Standard Test Method for Measurement of Extreme Pressure Properties of Lubricating Fluids (Timken Method)**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** cup rotating against block, Timken test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** lubricating fluids, extreme pressure**Special Environments:****Other Comments:** related to IP 240**Standard No:** ASTM D 2783-88 (Reapproved 1993)**Date:** 1993**Title:** Standard Test Method for Measurement of Extreme Pressure Properties of Lubricating Fluids (Four-Ball Method)**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** four-ball test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** lubricating fluids, extreme pressure**Special Environments:****Other Comments:****Standard No:** ASTM D 2809-94**Date:** 1994**Title:** Standard Test Method for Cavitation Corrosion and Erosion-Corrosion Characteristics of Aluminium Pumps with Engine Coolants**Lubricated /Un:** L **Material(s):** metals or alloys, aluminium**Test Method:** component test**Friction Measured?** ☐ **Wear Type:** cavitation erosion**Application Areas:** engine coolants for automotive water pumps**Special Environments:****Other Comments:****Standard No:** ASTM D 2882-90**Date:** 1990**Title:** Standard Test Method for Indicating the Wear Characteristics of Petroleum and Non-Petroleum Hydraulic Fluids in a Constant Volume Vane Pump**Lubricated /Un:** L **Material(s):** metals or alloys**Test Method:** vane pump test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubricant characterisation, hydraulic fluids**Special Environments:****Other Comments:****Standard No:** ASTM D 2966 (Discontinued 1983)**Date:****Title:** Standard Test Method for Cavitation Erosion Corrosion Characteristics of Aluminium in Engine Coolants Using Ultrasonic**Lubricated /Un:** U **Material(s):** metals or alloys, aluminium**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** cavitation, liquid erosion**Application Areas:** automotive water pumps**Special Environments:****Other Comments:** DISCONTINUED 1983

Standard No: ASTM D 2981-94**Date:** 1994**Title:** Standard Test Method for Wear Life of Solid Film Lubricants in Oscillating Motion**Lubricated /Un:** L**Material(s):** metals or alloys, coatings**Test Method:** block-on-ring**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** lubricants, bonded solid**Special Environments:****Other Comments:**

Standard No: ASTM D 3028-93**Date:** 1993**Title:** Standard Test Method for Kinetic Coefficient of Friction of Plastic Solids**Lubricated /Un:** U**Material(s):** plastics**Test Method:** pendulum friction test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastic solids and sheeting, friction**Special Environments:****Other Comments:**

Standard No: ASTM D 3108-95**Date:** 1995**Title:** Standard Test Method for Coefficient of Friction, Yarn to Solid Material**Lubricated /Un:** U**Material(s):** textiles, metals or alloys**Test Method:** yarn friction measuring apparatus**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** yarn to metal, friction**Special Environments:****Other Comments:**

Standard No: ASTM D 3181-95, G**Date:** 1995**Title:** Standard Guide for Conducting Wear Tests on Textiles**Lubricated /Un:** U**Material(s):** textiles**Test Method:** service conditions**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** textiles**Special Environments:****Other Comments:**

Standard No: ASTM D 3233-93**Date:** 1993**Title:** Standard Test Method for Measurement of Extreme Pressure Properties of Fluid Lubricants
(Falex Pin and Vee Block Method)**Lubricated /Un:** L**Material(s):** metals or alloys, steel**Test Method:** falex pin and vee block**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** lubricating fluids, evaluation**Special Environments:** temperature >25 C**Other Comments:**

Standard No: ASTM D 3234-88 (Reapproved 1993)**Date:** 1993**Title:** Standard Test Method for Abrasion Resistance of Petroleum Wax Coatings**Lubricated /Un:** U**Material(s):** wax coatings on paper**Test Method:** falling sand**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paper, waxed**Special Environments:****Other Comments:****Standard No:** ASTM D 3247-84 (Discontinued 1988)**Date:** 1984**Title:** Standard Test Method for Coefficient of Static Friction of Corrugated and Solid Fibreboard (Horizontal Plane Method)**Lubricated /Un:** U**Material(s):** fibreboard**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** fibreboard, friction**Special Environments:****Other Comments:** DISCONTINUED 1988, replaced by ASTM D4521**Standard No:** ASTM D 3248-84 (Discontinued 1988)**Date:** 1984**Title:** Standard Test Method for Coefficient of Static Friction of Corrugated and Solid Fibreboard (Inclined Plane Method)**Lubricated /Un:** U**Material(s):** fibreboard**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** fibreboard, friction**Special Environments:****Other Comments:** DISCONTINUED 1988, replaced by ASTM D4521**Standard No:** ASTM D 3336-91**Date:** 1991**Title:** Standard Test Method for Life of Lubricating Greases in Ball Bearings at Elevated Temperatures**Lubricated /Un:** L**Material(s):** metals or alloys, steel**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding or rolling contact**Application Areas:** lubricating greases, evaluation**Special Environments:** temperature > 25 C**Other Comments:****Standard No:** ASTM D 3389-94**Date:** 1994**Title:** Standard Test Method Coated Fabrics Abrasion Resistance (Rotary Platform Double Head Abrader)**Lubricated /Un:** U**Material(s):** rubber coated textiles (fabrics)**Test Method:** revolving platform, double-head (RPDH) abrader**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** rubber coated fabrics, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM D 3402-93**Date:** 1993**Title:** Standard Test Method for Tumbler Test for Coke**Lubricated /Un:** U**Material(s):** coke**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** impact wear, abrasion**Application Areas:** coke, breakage**Special Environments:****Other Comments:**

Standard No: ASTM D 3412-94**Date:** 1994**Title:** Standard Test Method for Coefficient of Friction, Yarn to Yarn**Lubricated /Un:** U**Material(s):** textiles, yarn**Test Method:** yarn-to-yarn friction apparatus**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** yarn to yarn friction**Special Environments:****Other Comments:**

Standard No: ASTM D 3428-86 (Discontinued 1990)**Date:** 1986**Title:** Standard Test Method for Torque, Stability, Wear and Brine Sensitivity Evaluation of Ball Joint Greases**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** ball-joint, greases for**Special Environments:****Other Comments:** DISCONTINUED 1990

Standard No: ASTM D 3527-95**Date:** 1995**Title:** Standard Test Method for Life Performance of Automotive Wheel Bearing Grease**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** greases for automotive wheel bearings**Special Environments:** temperature > 25 C**Other Comments:**

Standard No: ASTM D 3702-94**Date:** 1994**Title:** Standard Test Method for Wear Rate and Coefficient of Friction of Materials in Self Lubricated Rubbing Contact using a Thrust Washer Testing Machine**Lubricated /Un:** L**Material(s):** no specific material mentioned**Test Method:** thrust washer**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** self-lubricating materials**Special Environments:****Other Comments:**

Standard No: ASTM D 3704-90**Date:** 1990**Title:** Standard Test Method for Wear Preventive Properties of Lubricating Greases Using the (Falex) Block on Ring Test Machine in Oscillating Motion**Lubricated /Un:** L **Material(s):** metals or alloys, steel**Test Method:** block-on-ring (falex)**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** greases, anti-wear**Special Environments:****Other Comments:**

Standard No: ASTM D 3730-94, G**Date:** 1994**Title:** Standard Guide for Testing High-Performance Interior Architectural Wall Coatings**Lubricated /Un:** U **Material(s):** coatings**Test Method:** abrasive wheel**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** wall coatings, abrasion**Special Environments:****Other Comments:** In accordance with ASTM D4060

Standard No: ASTM D 3884-92**Date:** 1992**Title:** Standard Test Method for Abrasion Resistance of Textile Fabrics (Rotary Platform, Double Head Method)**Lubricated /Un:** U **Material(s):** textiles (fabrics)**Test Method:** revolving platform, double-head (RPDH) abrader**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** textiles, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM D 3885-92**Date:** 1992**Title:** Standard Test Method for Abrasion Resistance of Textile Fabrics (Flexing and Abrasion Method)**Lubricated /Un:** U **Material(s):** textiles (fabrics)**Test Method:** folding and rubbing**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** textiles, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM D 3886-92**Date:** 1992**Title:** Standard Test Method for Abrasion Resistance of Textile Fabrics (Inflated Diaphragm Method)**Lubricated /Un:** U **Material(s):** textiles (fabrics)**Test Method:** rubbing, inflated diaphragm**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** textiles, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM D 4058-92**Date:** 1992**Title:** Standard Test Method for Attrition and Abrasion of Catalysts and Catalyst Carriers**Lubricated /Un:** U**Material(s):** catalysts, catalyst carriers**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** abrasion, attrition**Application Areas:** catalyst, breakage**Special Environments:****Other Comments:**

Standard No: ASTM D 4060-95**Date:** 1995**Title:** Standard Test Method of Abrasion Resistance of Organic Coatings by the Taber Abraser**Lubricated /Un:** U**Material(s):** organic coatings**Test Method:** abrasive wheel, Taber Abrasion Test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** organic coatings, abrasion**Special Environments:****Other Comments:** ratings relate well to those by ASTM D968

Standard No: ASTM D 4103-82, P**Date:** 1982**Title:** Practice for Preparation of Substrate Surfaces for Coefficient of Friction Testing**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** friction testing, substrate preparation for**Special Environments:****Other Comments:**

Standard No: ASTM D 4157-92**Date:** 1992**Title:** Standard Test Method for Abrasion Resistance of Textile Fabrics (Oscillatory Cylinder Method)**Lubricated /Un:** U**Material(s):** textiles (fabrics)**Test Method:** rubbing**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** textiles, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM D 4158-92**Date:** 1992**Title:** Standard Test Method for Abrasion Resistance of Textile Fabrics (Uniform Abrasion Method)**Lubricated /Un:** U**Material(s):** textiles (fabrics)**Test Method:** uniform abrasion**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** textiles, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM D 4170-87**Date:** 1987**Title:** Standard Test Method for Fretting Wear Protection by Lubrication Greases**Lubricated /Un:** U**Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** fretting**Application Areas:** fretting test of greases**Special Environments:****Other Comments:**

Standard No: ASTM D 4172-94**Date:** 1994**Title:** Standard Test Method for Wear Preventive Characteristics of Lubricating Fluid (Four Ball Method)**Lubricated /Un:** L**Material(s):** metals or alloys, steel**Test Method:** four-ball test**Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** lubricant characterisation**Special Environments:****Other Comments:**

Standard No: ASTM D 4173-82, P**Date:** 1982**Title:** Practice for Sheet Metal Forming Lubricant Evaluation**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** sheet metal forming**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** sheet metal forming lubricants**Special Environments:****Other Comments:**

Standard No: ASTM D 4213-95**Date:** 1995**Title:** Standard Test Method for Abrasion Resistance of Interior Paints**Lubricated /Un:** U**Material(s):** paint, coatings**Test Method:** abrasive scrubbing**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paint, abrasion by scrubbing**Special Environments:****Other Comments:**

Standard No: ASTM D 4259-83**Date:** 1983**Title:** Practice for Abrading Concrete**Lubricated /Un:** U**Material(s):** concrete**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** concrete, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM D 4518-91**Date:** 1991**Title:** Standard Test Method for Static Friction of Coating Surfaces**Lubricated /Un:** U**Material(s):** coatings**Test Method:** inclined plane, horizontal pull**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** coatings, friction**Special Environments:****Other Comments:**

Standard No: ASTM D 4521-91**Date:** 1991**Title:** Standard Test Method for Coefficient of Static Friction of Corrugated and Solid Fibreboard**Lubricated /Un:** U**Material(s):** fibreboard**Test Method:** inclined plane, horizontal pull**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** board containers, materials handling applications, friction**Special Environments:****Other Comments:**

Standard No: ASTM D 4644-97 (Reapproved 1992)**Date:** 1992**Title:** Standard Test Method for Slake Durability of Shales and Similar Weak Rocks**Lubricated /Un:** U**Material(s):** rock**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** abrasion, impact**Application Areas:** weak rocks in service environment, durability**Special Environments:****Other Comments:**

Standard No: ASTM D 4736-87**Date:** 1987**Title:** Standard Test Method for Evaluating Friction Retention Characteristics of Oil Cooled Bronze Faced Friction Clutches**Lubricated /Un:** U**Material(s):** clutch materials**Test Method:** friction clutches test**Friction Measured?** ☐ **Wear Type:****Application Areas:** clutches, friction retention**Special Environments:** temperature > 25 C**Other Comments:**

Standard No: ASTM D 4863-88**Date:** 1988**Title:** Standard Test Method for Determination of Lubricity of Two Stroke Cycle Gasoline Engine Lubricants**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:****Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** lubricity, of gasoline engine lubricants**Special Environments:** temperature > 25 C**Other Comments:**

Standard No: ASTM D 4886-88 (Reapproved 1995) **Date:** 1995
Title: Standard Test Method For Abrasion Resistance of Geotextiles (Sand Paper/ Sliding Block Method)

Lubricated /Un: U **Material(s):** geotextiles

Test Method: abrasive paper

Friction Measured? ☐ **Wear Type:** abrasion

Application Areas: textiles used with geotechnical materials

Special Environments:

Other Comments:

Standard No: ASTM D 5181-91 **Date:** 1991

Title: Standard Test Method For Abrasion Resistance of Printed Matter by the GA-CAT Comprehensive Abrasion Tester

Lubricated /Un: U **Material(s):** packaging material

Test Method: rubbing, sliding of test print and receptor

Friction Measured? ☐ **Wear Type:** abrasion

Application Areas: printed materials used in packaging, abrasion

Special Environments:

Other Comments:

Standard No: ASTM D 5183-95 **Date:** 1995

Title: Standard Test Method For Determination of the Coefficient of Friction of Lubricants Using the Four-Ball Wear Test Machine

Lubricated /Un: L **Material(s):** metals or alloys, steel

Test Method: four-ball test

Friction Measured? ☒ **Wear Type:** sliding or rolling contact

Application Areas: lubricating fluids, friction

Special Environments:

Other Comments:

Standard No: ASTM D 5264-92 **Date:** 1992

Title: Standard Test Method For Abrasion Resistance of Printed Materials

Lubricated /Un: U **Material(s):** packaging materials

Test Method: rubbing

Friction Measured? ☐ **Wear Type:** abrasion

Application Areas: printed materials used in packaging, abrasion

Special Environments:

Other Comments:

Standard No: ASTM D 5416-95 **Date:** 1995

Title: Standard Test Method For Evaluating Abrasion Resistance of Stretch Wrap Films by Vibration Testing

Lubricated /Un: U **Material(s):** plastic films

Test Method: rubbing

Friction Measured? ☐ **Wear Type:** abrasion

Application Areas: wrap films used in packaging, abrasion

Special Environments:

Other Comments:

Standard No: ASTM D 658-91**Date:** 1991**Title:** Standard Test Method for Abrasion Resistance of Organic Coatings by Air Blast Abrasive**Lubricated /Un:** U**Material(s):** organic coatings**Test Method:** abrasive jet**Friction Measured?** ☐ **Wear Type:** abrasion, solid erosion**Application Areas:** air blast erosion of organic coatings**Special Environments:****Other Comments:**

Standard No: ASTM D 662-93**Date:** 1993**Title:** Standard Test Method for Evaluating Degree of Resistance to Erosion of Exterior Paints**Lubricated /Un:** U**Material(s):** paint**Test Method:** in service evaluation**Friction Measured?** ☐ **Wear Type:** impact wear, liquid erosion, solid erosion**Application Areas:** exterior painting, erosion**Special Environments:****Other Comments:**

Standard No: ASTM D 821(Discontinued 1984)**Date:****Title:** Methods for Evaluating Degree of Abrasion, Erosion, or a Combination of Both in Road Service Tests of Traffic Paint**Lubricated /Un:** U**Material(s):** paint**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion, solid erosion**Application Areas:** traffic markings, abrasion of paint on roads**Special Environments:****Other Comments:** DISCONTINUED 1984

Standard No: ASTM D 913-88 (Reapproved 1993)**Date:** 1993**Title:** Standard Test Method for Evaluating Degree of Resistance to Abrasion of Traffic Paint**Lubricated /Un:** U**Material(s):** paint**Test Method:** in service evaluation**Friction Measured?** ☐ **Wear Type:** erosion**Application Areas:** traffic paint on road surface**Special Environments:****Other Comments:**

Standard No: ASTM D 968-93**Date:** 1993**Title:** Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive**Lubricated /Un:** U**Material(s):** organic coatings**Test Method:** falling abrasive**Friction Measured?** ☐ **Wear Type:** abrasion, solid erosion**Application Areas:** floor coatings, coatings for ship decks, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM E 274-85**Date:** 1985**Title:** Standard Test Method for Skid Resistance of Paved Surfaces Using a Full-Scale Tyre**Lubricated /Un:** U**Material(s):** rubber, asphalt, concrete**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** highway paving, skid resistance, full-scale tyres**Special Environments:****Other Comments:****Standard No:** ASTM E 279-92**Date:** 1992**Title:** Standard Test Method for Determination of Abrasion Resistance of Iron Ore Pellets and Sinter (Tumbler Test)**Lubricated /Un:** U**Material(s):** iron ore**Test Method:** rotating drum**Friction Measured?** ☐ **Wear Type:** abrasion, impact**Application Areas:** iron ore pellets and sinter, degradation**Special Environments:****Other Comments:****Standard No:** ASTM E 303**Date:****Title:** Standard Test Methods for Frictional Characteristics Using the British Portable Tester**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** British portable tester**Special Environments:****Other Comments:****Standard No:** ASTM E 405-89**Date:** 1989**Title:** Standard Test Method for Wear Testing Rotary Operators for Windows**Lubricated /Un:** U&L**Material(s):** metals or alloys**Test Method:** component test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** rotary operators for windows**Special Environments:****Other Comments:****Standard No:** ASTM E 503-82**Date:** 1982**Title:** Standard Test Method for Measurement of Slip Resistance on Paved Surfaces Using a Passenger Vehicle Diagonal Braking Technique**Lubricated /Un:** U**Material(s):** rubber, asphalt, concrete**Test Method:** highway paving test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** rubber, slip resistance of**Special Environments:****Other Comments:**

Standard No: ASTM E 510, P**Date:****Title:** Recommended Practice for Determining Pavement Surface Friction and Polishing Characteristics Using a Small Torque Device**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** pavement, surface friction on**Special Environments:****Other Comments:**

Standard No: ASTM E 670-87**Date:** 1987**Title:** Standard Test Method for Side Force Friction on Paved Surfaces Using the Mu-Meter**Lubricated /Un:** U**Material(s):** asphalt and concrete**Test Method:** highway paving test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** pavement, friction of**Special Environments:****Other Comments:**

Standard No: ASTM E 707-84**Date:** 1984**Title:** Standard Test Method for Skid Resistance of Paved Surfaces Using the N.C. State University Variable Speed Friction Tester**Lubricated /Un:** U**Material(s):** asphalt and concrete**Test Method:** highway paving test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** pavement, friction, skid resistance**Special Environments:****Other Comments:**

Standard No: ASTM F 1016-86, P**Date:** 1986**Title:** Standard Practice for Tyre Tread Wear Data Analysis**Lubricated /Un:** U**Material(s):** rubber**Test Method:****Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** automotive tyres, tyre tread wear data analysis**Special Environments:****Other Comments:**

Standard No: ASTM F 1046-87, G**Date:** 1987**Title:** Standard Guide for Preparing Artificially Worn Passenger and Light Truck for Testing**Lubricated /Un:** U**Material(s):** rubber**Test Method:****Friction Measured?** ☐ **Wear Type:** sliding or rolling contact**Application Areas:** automotive tyres**Special Environments:****Other Comments:**

Standard No: ASTM F 1128-88**Date:** 1988**Title:** Standard Test Method for Abrasion Resistance of Transparent Plastics and Coatings Using Salt Impingement Method**Lubricated /Un:** U**Material(s):** plastics, coatings**Test Method:** abrasive jet**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** plastics or coatings, abrasion**Special Environments:****Other Comments:****Standard No:** ASTM F 1319-94**Date:** 1993**Title:** Standard Test Method for Determination of Abrasion and Smudge Resistance of Images Produced From Business Copy Products (Crockmeter Method)**Lubricated /Un:** U**Material(s):** paper, print**Test Method:** rubbing**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** printed page rubbing against paper**Special Environments:****Other Comments:****Standard No:** ASTM F 153-83**Date:** 1983**Title:** Standard Test Method for Wear Resistance of Wide Inked Computer Ribbons**Lubricated /Un:** U**Material(s):** textiles**Test Method:** computer ribbon test**Friction Measured?** ☐ **Wear Type:** impact wear**Application Areas:** ribbons, inked, computer**Special Environments:****Other Comments:****Standard No:** ASTM F 1571-95**Date:** 1995**Title:** Standard Test Method For Determination of Abrasion and Smudge Resistance of Images Produced from Business Copy Products (Sutherland Method)**Lubricated /Un:** U**Material(s):** paper, print**Test Method:** rubbing**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** printed image rubbing against paper**Special Environments:****Other Comments:****Standard No:** ASTM F 376-79**Date:** 1979**Title:** Standard Test Method for Tyres for Wet Traction in Cornering (without Torque application) Using Highway Vehicles**Lubricated /Un:** L**Material(s):** rubber**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** automotive tyres, traction in cornering**Special Environments:** water present**Other Comments:**

Standard No: ASTM F 377-86**Date:** 1986**Title:** Standard Method for Calibration of Braking Force for Testing of Pneumatic Tyres**Lubricated /Un:** U**Material(s):** rubber**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** automotive tyres**Special Environments:****Other Comments:**

Standard No: ASTM F 403-86**Date:** 1986**Title:** Standard Test Method for Tyres for Wet Traction in Straight Ahead Braking, Using Highway Vehicles**Lubricated /Un:** L**Material(s):** rubber**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear, rolling contact**Application Areas:** automotive tyres, wet traction**Special Environments:** water present**Other Comments:**

Standard No: ASTM F 408-86**Date:** 1986**Title:** Standard Test Method for Tyres for Wet Traction in Straight Ahead Braking, Using a Towed Trailer**Lubricated /Un:** L**Material(s):** rubber**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear, rolling contact**Application Areas:** automotive tyres, wet traction**Special Environments:** water present**Other Comments:**

Standard No: ASTM F 410-82**Date:** 1982**Title:** Standard Test Method for Wear Layer Thickness of Resilient Floor Coverings by Optical Measurement**Lubricated /Un:** U**Material(s):** non-textile floor coverings**Test Method:****Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** floor covering**Special Environments:****Other Comments:**

Standard No: ASTM F 424-86**Date:** 1986**Title:** Standard Test Method for Tyres for Wet Traction in Straight Ahead Motion Using Highway Vehicles**Lubricated /Un:** L**Material(s):** rubber**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear, rolling contact**Application Areas:** automotive tyres**Special Environments:** water present**Other Comments:**

Standard No: ASTM F 489-96**Date:** 1996**Title:** Standard Test Method for Using a James Machine**Lubricated /Un:** U**Material(s):** shoe materials**Test Method:** James machine, sliding on walking surface**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** shoe materials sliding against walking surfaces**Special Environments:****Other Comments:****Standard No:** ASTM F 510-93**Date:** 1993**Title:** Standard Test Method for Resistance to Abrasion of Resilient Floor Coverings Using an Abrader with a Grit Feed Method**Lubricated /Un:** U**Material(s):** non-textile floor coverings**Test Method:** abrasive wheel**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** floor coverings, abrasion**Special Environments:****Other Comments:****Standard No:** ASTM F 534-86**Date:** 1986**Title:** Standard Test Method for Peak Wet Traction of Tyres in Cornering with Driving Torque Application Using Highway Vehicles**Lubricated /Un:** L**Material(s):** rubber**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding or rolling contact**Application Areas:** automotive tyres, traction in cornering**Special Environments:****Other Comments:****Standard No:** ASTM F 554-78**Date:** 1978**Title:** Standard Test Method for Wet Cornering Traction of Tyres Using Over the Road Tyre Tester**Lubricated /Un:** L**Material(s):** rubber**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding or rolling contact**Application Areas:** automotive tyres**Special Environments:****Other Comments:****Standard No:** ASTM F 732-82 (Reapproved 1991), P**Date:** 1991**Title:** Standard Practice for Reciprocating Pin-on-Flat Evaluation of Friction and Wear Properties of Polymeric Materials for Use in Total Joint Replacements**Lubricated /Un:** L: serum**Material(s):** polymers**Test Method:** pin-on-flat, reciprocating**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** polymers for joint prostheses, reciprocating test**Special Environments:****Other Comments:**

Standard No: ASTM F 735-94**Date:** 1994**Title:** Standard Test Method for Abrasion Resistance of Transparent Plastics and Coatings Using Oscillating Sand Method**Lubricated /Un:** U**Material(s):** plastics, coatings**Test Method:** vibrating tray**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** aerospace materials, sand abrasion of transparent plastics**Special Environments:****Other Comments:**

Standard No: ASTM F 897-84,P**Date:** 1984**Title:** Practice for Measuring Fretting Corrosion of Osteo Synthesis Plates and Screws**Lubricated /Un:** U**Material(s):** metals or alloys**Test Method:****Friction Measured?** ☐ **Wear Type:** fretting**Application Areas:** medical implants, plates and screws**Special Environments:****Other Comments:**

Standard No: ASTM F 92-84**Date:** 1984**Title:** Standard Practice for Determination of Wear Resistance of Inked Typewriter Ribbon**Lubricated /Un:** U**Material(s):** textiles**Test Method:** typewriter ribbon test**Friction Measured?** ☐ **Wear Type:** impact wear**Application Areas:** ribbons, inked, typewriter**Special Environments:****Other Comments:**

Standard No: ASTM G 105-89**Date:** 1989**Title:** Standard Test Method for Conducting Wet Sand/Rubber Wheel Abrasion Tests**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** wet sand/ rubber wheel test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** ranking materials for use in abrasive environments**Special Environments:****Other Comments:**

Standard No: ASTM G 115-93, G**Date:** 1993**Title:** Standard Guide for Measuring and Reporting Friction Coefficients**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** friction tests**Friction Measured?** ☒ **Wear Type:****Application Areas:** friction measurement**Special Environments:****Other Comments:** Table of current ASTM friction test standards is given for review and to aid selection

Standard No: ASTM G 117-93, G**Date:** 1993**Title:** Standard Guide for Calculating and Reporting Measures of Precision Using Data from Interlaboratory Wear of Erosion Tests**Lubricated /Un:** U&L **Material(s):** no specific material mentioned**Test Method:** calculating and reporting**Friction Measured?** ☐ **Wear Type:** all types of wear and erosion**Application Areas:** Interlaboratory tests**Special Environments:****Other Comments:**

Standard No: ASTM G 118-95, G**Date:** 1995**Title:** Standard Guide for Recommended Data Format for Sliding Wear Test, Data Suitable for Databases**Lubricated /Un:** U **Material(s):** no specific material mentioned**Test Method:** all tests for sliding wear**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** data comparison**Special Environments:****Other Comments:**

Standard No: ASTM G 119-93, G**Date:** 1993**Title:** Standard Guide for Determining Synergism Between Wear and Corrosion**Lubricated /Un:** U **Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** all types of wear**Application Areas:** corrosion and wear**Special Environments:****Other Comments:**

Standard No: ASTM G 132-95**Date:** 1995**Title:** Standard Test Method for Pin Abrasion Testing**Lubricated /Un:** U **Material(s):** no specific material mentioned**Test Method:** pin-on-disc, pin-on-drum, pin-on-table, pin-on-belt**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** ranking materials for abrasion resistance**Special Environments:****Other Comments:**

Standard No: ASTM G 133-95**Date:** 1995**Title:** Standard Test Method for Linearly Reciprocating Ball-on-Flat Sliding Wear**Lubricated /Un:** U&L **Material(s):** metals or alloys, ceramics, other**Test Method:** ball-on-flat, reciprocating**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** rubbing components**Special Environments:****Other Comments:**

Standard No: ASTM G 134-95**Date:** 1996**Title:** Standard Test Method for Erosion of Solid Materials by a Cavitating Liquid Jet**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** cavitating jet on submerged specimen**Friction Measured?** ☐ **Wear Type:** cavitation**Application Areas:** flowing systems and hydraulic machines**Special Environments:****Other Comments:****Standard No:** ASTM G 137-95**Date:** 1995**Title:** Standard Test Method for Ranking Resistance of Plastic Materials to Sliding Wear Using a Block-on-Ring Configuration**Lubricated /Un:** U**Material(s):** plastics**Test Method:** block-on-ring**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastic materials, wear resistance**Special Environments:****Other Comments:****Standard No:** ASTM G 32-92**Date:** 1993**Title:** Standard Test Method for Cavitation-Erosion using Vibratory Apparatus**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** vibrating specimen immersed in liquid**Friction Measured?** ☐ **Wear Type:** cavitation**Application Areas:** cavitation erosion in flowing systems and hydraulic machines**Special Environments:****Other Comments:****Standard No:** ASTM G 40-95**Date:** 1995**Title:** Standard Terminology Relating to Wear and Erosion**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** terminology**Friction Measured?** ☐ **Wear Type:** all types of wear and erosion**Application Areas:** terminology**Special Environments:****Other Comments:****Standard No:** ASTM G 56-82 (1995)**Date:** 1995**Title:** Standard Test Method for Abrasiveness of Ink Impregnated Fabric Printer Ribbon**Lubricated /Un:** U**Material(s):** textiles, metals or alloys**Test Method:** ball against cylinder wrapped in printer ribbon**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** fabric printer ribbon, abrasion**Special Environments:****Other Comments:**

Standard No: ASTM G 6-88, (1992)**Date:** 1992**Title:** Standard Test Method for Abrasion Resistance of Pipeline Coatings**Lubricated /Un:** U**Material(s):** coatings**Test Method:** component test, revolving drum**Friction Measured?** ☐ **Wear Type:** abrasion, impact**Application Areas:** pipeline coatings, wear test**Special Environments:****Other Comments:** DISCONTINUED**Standard No:** ASTM G 65-94**Date:** 1994**Title:** Standard Test Method for Measuring Abrasion Using the Dry Sand/Rubber Wheel Apparatus**Lubricated /Un:** U**Material(s):** metals or alloys**Test Method:** dry sand/ rubber wheel**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** ranking materials for use in abrasive environments**Special Environments:****Other Comments:****Standard No:** ASTM G 73-93, P**Date:** 1993**Title:** Standard Practice for Liquid Impingement Erosion Testing**Lubricated /Un:** U**Material(s):** window materials, coatings**Test Method:** liquid impingement**Friction Measured?** ☐ **Wear Type:** liquid erosion**Application Areas:** resistance of materials to liquid impact**Special Environments:****Other Comments:****Standard No:** ASTM G 75-95**Date:** 1995**Title:** Standard Test Method for Determination of Slurry Abrasivity (Miller Number) and Slurry Abrasion Response of Materials (SAR Number)**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** loaded block reciprocating in tray containing slurry**Friction Measured?** ☐ **Wear Type:** slurry erosion**Application Areas:** slurries, slurry pumping systems for construction materials, abrasion**Special Environments:****Other Comments:****Standard No:** ASTM G 76-95**Date:** 1995**Title:** Standard Test Method for Conducting Erosion Tests by Solid Particle Impingement Using Gas Jets**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** abrasive jet**Friction Measured?** ☐ **Wear Type:** solid erosion**Application Areas:** erosion resistance of materials**Special Environments:****Other Comments:**

Standard No: ASTM G 77-93**Date:** 1993**Title:** Standard Test Method for Ranking Resistance of Materials to Sliding Wear Using Block-on-Ring Wear Test**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:** block-on-ring**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** ranking materials for resistance to sliding wear**Special Environments:****Other Comments:****Standard No:** ASTM G 81-83 (1989), P**Date:** 1989**Title:** Standard Practice for Jaw Crusher Gouging Abrasion Test**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** jaw crusher gouging abrasion**Friction Measured?** ☒ **Wear Type:** abrasion**Application Areas:** crushing equipment, mining and earthmoving**Special Environments:****Other Comments:****Standard No:** ASTM G 83-90**Date:** 1990**Title:** Standard Test Method for Wear Testing with a Crossed Cylinder Apparatus**Lubricated /Un:** U&L**Material(s):** metals or alloys**Test Method:** cross-cylinder, perpendicular cylinders, one rotating**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** metal couples, wear resistance**Special Environments:****Other Comments:****Standard No:** ASTM G 98-91**Date:** 1991**Title:** Standard Test Method for Galling Resistance of Materials**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** cylindrical flat-on-flat geometry, rotating**Friction Measured?** ☐ **Wear Type:** galling**Application Areas:** ranking resistance of material couples to failure by galling**Special Environments:****Other Comments:****Standard No:** ASTM G 99-95a**Date:** 1996**Title:** Standard Test Method for Wear Testing with a Pin-on-Disc Apparatus**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** pin-on-disc**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** pin-on-disk test method**Special Environments:****Other Comments:**

Standard No: ASTM STP 1010**Date:** 1988**Title:** Friction and Wear Testing of Ion Beam Modified Ceramics for High Temperature Low Heat Rejection Diesel Engines**Lubricated /Un:** U **Material(s):** ceramics**Test Method:** pin-on-disc**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** diesel engines**Special Environments:****Other Comments:****Standard No:** ASTM STP 1010**Date:** 1988**Title:** Considerations in Ceramic Friction and Wear Measurements**Lubricated /Un:** U&L **Material(s):** ceramics**Test Method:** ball-on-three-flat**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** ceramics, friction and wear**Special Environments:****Other Comments:****Standard No:** ASTM STP 1010**Date:** 1988**Title:** Pin-on-Disc Wear Tests for Evaluating Ceramic Cutting Tool Materials**Lubricated /Un:** U **Material(s):** ceramics**Test Method:** pin-on-disc**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** ceramic cutting tools**Special Environments:****Other Comments:****Standard No:** ASTM STP 1010**Date:** 1988**Title:** Unique friction and Wear Tester for Fundamental Tribology Research**Lubricated /Un:** U **Material(s):** ceramics**Test Method:** rod on flat**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** ceramics, rod-on-flat test**Special Environments:****Other Comments:****Standard No:** ASTM STP 1167**Date:** 1992**Title:** Results from a U.K. Interlaboratory Project on Dry Sliding Wear of Alumina**Lubricated /Un:** U **Material(s):** ceramics, alumina**Test Method:** pin-on-disc**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** alumina, sliding wear**Special Environments:****Other Comments:**

Standard No: ASTM STP 1167**Date:** 1992**Title:** Effect of Test Machine Dynamics on the Sliding Wear of Alumina**Lubricated /Un:** U**Material(s):** ceramics, alumina**Test Method:** pin-on-disc**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** alumina, sliding wear**Special Environments:****Other Comments:** effect of stiffness**Standard No:** ASTM STP 1167**Date:** 1992**Title:** Wear Diagram for Sliding of Silicon Nitrides**Lubricated /Un:** U**Material(s):** ceramics, silicon nitride**Test Method:** pin-on-disc**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** silicon nitrides, sliding wear**Special Environments:****Other Comments:** D.S. Lim, S.K. Park and H. Moon**Standard No:** ASTM STP 1167**Date:** 1992**Title:** Evaluation of Wear Materials for Seal Applications**Lubricated /Un:** U**Material(s):** seal materials**Test Method:** thrust washer, pin-on-disc**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** mechanical seals**Special Environments:****Other Comments:****Standard No:** ASTM STP 1167**Date:** 1992**Title:** Wear Testing of Non-Metallic Materials for Bearing Applications**Lubricated /Un:** U**Material(s):** ceramics**Test Method:** pin-on-disc, rolling contact fatigue**Friction Measured?** ☒ **Wear Type:** sliding wear, rolling fatigue**Application Areas:** bearings**Special Environments:****Other Comments:****Standard No:** ASTM STP 1167**Date:** 1992**Title:** Fretting Wear of Continuous Fibre-Reinforced Polymer Composites**Lubricated /Un:** U**Material(s):** polymer composites**Test Method:** fretting test**Friction Measured?** ☒ **Wear Type:** fretting**Application Areas:** fibre-reinforced polymer composites, fretting wear**Special Environments:****Other Comments:**

Standard No: ASTM STP 1167**Date:** 1992**Title:** Apparatus for Thrust Wear Testing of Advanced Tribological Materials**Lubricated /Un:** L: mud **Material(s):** ceramics**Test Method:** thrust wear tester**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** down-hole mortar**Special Environments:****Other Comments:**

Standard No: ASTM STP 1167**Date:** 1992**Title:** Evaluation of Abrasive Particle Trajectories in a Slurry Jet During Erosion of Metal Matrix Composites**Lubricated /Un:** L **Material(s):** MMC, composites**Test Method:** slurry erosion test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:**

Standard No: ASTM STP 1167**Date:** 1992**Title:** Effect of Test Variables on the Friction and Wear of Alumina**Lubricated /Un:** U&L **Material(s):** metals (steel), ceramics, alumina**Test Method:** reciprocating, pin-on-disc, thrust washer**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** alumina, friction and wear**Special Environments:****Other Comments:** comparison of different testing methods

Standard No: ASTM STP 1199**Date:** 1993**Title:** Test Method and Applications for Slurry Erosion - A Review**Lubricated /Un:** L: water **Material(s):** no specific material mentioned**Test Method:** slurry erosion test**Friction Measured?** ☐ **Wear Type:** slurry erosion**Application Areas:****Special Environments:****Other Comments:** H.McI. Clark

Standard No: ASTM STP 1199**Date:** 1993**Title:** The Miller Number - A Review**Lubricated /Un:** L: water **Material(s):** no specific material mentioned**Test Method:** Miller abrasion test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** slurries produced in mining, abrasion**Special Environments:****Other Comments:** J.E. Miller and J.D. Miller

Standard No: ASTM STP 1199**Date:** 1993**Title:** Comparison of Laboratory Abrasion Tests and Field Tests of Materials Used in Tillage Equipment**Lubricated /Un:** U**Material(s):** metals (steel)**Test Method:** dry or wet sand / rubber wheel, pin-on-disc abrasion**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** Tillage equipment**Special Environments:****Other Comments:** P.A. Swanson**Standard No:** ASTM STP 1199**Date:** 1993**Title:** Friction Characteristics of Plastic Plain Bearings at Low Velocity**Lubricated /Un:** U**Material(s):** polymer bearings**Test Method:** linear slide**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** plastic plain bearings, friction**Special Environments:****Other Comments:** K.G. Budinski**Standard No:** ASTM STP 1199**Date:** 1993**Title:** Development of a Wear Test for Adiabatic Diesel Ring and Liner Materials**Lubricated /Un:** U**Material(s):** ceramics**Test Method:** reciprocating**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** diesel engines**Special Environments:** High temperature, exhaust gas environment**Other Comments:** W.A. Glaeser and P.A. Gaydos**Standard No:** ASTM STP 946**Date:** 1987**Title:** Test Approach for Dense Slurry Erosion**Lubricated /Un:** L: water**Material(s):** metals or alloys**Test Method:** slurry bed test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:****Standard No:** ASTM STP 946**Date:** 1987**Title:** Slurry Erosion and Abrasion of Metal-Ceramic Coatings**Lubricated /Un:** L: water**Material(s):** metal-ceramic coatings**Test Method:** wet sand/ rubber wheel, jet erosion**Friction Measured?** ☐ **Wear Type:** abrasion, erosion**Application Areas:****Special Environments:****Other Comments:**

Standard No: ASTM STP 946**Date:** 1987**Title:** The Relative Erosivity of Coal-Oil, Coal-Water, and Petroleum Coke-Oil Slurries**Lubricated /Un:** L**Material(s):** steel, metals or alloys**Test Method:** slurry-pot erosion**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:**

Standard No: ASTM STP 946**Date:** 1987**Title:** Erosivity of Coal Particles in Coal-Solvent Slurries**Lubricated /Un:** L**Material(s):** steel, metals or alloys**Test Method:** slurry-pot erosion**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:**

Standard No: ASTM STP 946**Date:** 1987**Title:** The Validity of Fuel Recycling During Erosivity Testing Using Coal-Water Liquid Fuels**Lubricated /Un:** L**Material(s):** steel, metals or alloys**Test Method:** jet erosion**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:**

Standard No: ASTM STP 946**Date:** 1987**Title:** Comparison Between Laboratory Characterisation and Field Performance of Steel Mud Pump
Liners Coated With CM 500L, a Tungsten-Carbon Alloy**Lubricated /Un:** L**Material(s):** metals or alloys (steel), rubber**Test Method:** miller abrasion test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** slurry pumping**Special Environments:****Other Comments:**

Standard No: ASTM STP 946**Date:** 1987**Title:** Jet-in-Slit and Vibratory Methods for Slurry Erosion-Corrosion Tests of Materials**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** jet erosion, vibratory**Friction Measured?** ☐ **Wear Type:** abrasion, erosion**Application Areas:****Special Environments:****Other Comments:**

Standard No: ASTM STP 946**Date:** 1987**Title:** The SAR Number for Slurry Abrasion Resistance**Lubricated /Un:** L: water**Material(s):** metals or alloys**Test Method:** Miller abrasion test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:****Standard No:** ASTM STP 946**Date:** 1987**Title:** Ball Mill and Hub Test Methods for Slurry Erosion Evaluation of Materials**Lubricated /Un:** L: water**Material(s):** metals or alloys, steel**Test Method:** hubble test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:****Standard No:** ASTM STP 946**Date:** 1987**Title:** A New Flow-Through Slurry Erosion Wear Test**Lubricated /Un:** L: water**Material(s):** metals or alloys**Test Method:** slurry test (impeller)**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:****Standard No:** ASTM STP 946**Date:** 1987**Title:** Experience with the Wet Sand/ Rubber Wheel Abrasion Test**Lubricated /Un:** L: water**Material(s):** metals or alloys**Test Method:** wet sand/ rubber wheel test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:****Chemical Specialties Manufacturers Association**

Standard No: BUL 211.1**Date:****Title:** Test Method for Static Coefficient of Friction Polished Coated Surfaces as Measured by the James Machine**Lubricated /Un:** U**Material(s):** coatings**Test Method:** James machine**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** polished coated surface, static friction**Special Environments:****Other Comments:**

Maple Flooring Manufacturers Association

Standard No: MFMA 1 (1982)**Date:** 1982**Title:** Hard Maple Flooring Specification Data: Grades, Wearing Qualities, Installation**Lubricated /Un:** U**Material(s):** wood flooring**Test Method:****Friction Measured?** ☐ **Wear Type:** sliding wear, impact wear, abrasion**Application Areas:** flooring, wear of maple**Special Environments:****Other Comments:**

MIL: US Military/Federal Document

Standard No: MIL-STD-206**Date:** 1993**Title:** Friction Torque Testing for Instrument Ball Bearings Parts 1 and 2**Lubricated /Un:****Material(s):** metals or alloys**Test Method:** friction torque test**Friction Measured?** ☒ **Wear Type:****Application Areas:** ball bearings**Special Environments:****Other Comments:**

NACE: National Association of Corrosion Engineers

Standard No: NACE TM 03 75**Date:** 1986**Title:** Abrasion Resistance Testing of Thin Film Baked Coatings and Linings Using the Falling Sand Method**Lubricated /Un:** U**Material(s):** coatings**Test Method:** falling sand**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** coatings, thin film baked, abrasion resistance**Special Environments:****Other Comments:** CANCELLED 1995

Standard No: TM-01-70**Date:****Title:** Visual Standard for Surfaces of New Steel Airblast Cleaned with Sand Abrasive**Lubricated /Un:** U**Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:**

Standard No: TM-03-75**Date:****Title:** Test Method for Abrasion Resistance of Thin Film Baked Coating and Linings Using the Falling Sand Method**Lubricated /Un:** U**Material(s):** coatings**Test Method:** falling sand**Friction Measured?** ☐ **Wear Type:** abrasion, erosion**Application Areas:****Special Environments:****Other Comments:**

National Ready Mix Concrete Association

Standard No: 156 (1978)**Date:** 1978**Title:** Abrasion Resistance, Strength and Toughness and Related Properties of Concrete Aggregates**Lubricated /Un:** U**Material(s):** concrete**Test Method:** product test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:**

NEMA:National Electrical Manufacturers Association

Standard No: NEMA MW 750**Date:** 1990**Title:** Dynamic Coefficient of Friction of Film-Insulated Magnet Wire**Lubricated /Un:****Material(s):** coatings, film-insulated magnet wire**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** film-insulated magnet wire, coefficient of friction**Special Environments:****Other Comments:**

Packing Institute (IPP)

Standard No: IPP 110.3**Date:****Title:** Surface Friction of Paper and Paperboard**Lubricated /Un:** U**Material(s):** paper, packaging**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** paper and board, friction of**Special Environments:****Other Comments:**

Porcelain Enamel Institute

Standard No: T-2**Date:****Title:** Test for Resistance of Porcelain Enamels to Abrasion**Lubricated /Un:** U**Material(s):** ceramics, porcelain enamels**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** porcelain fixtures**Special Environments:****Other Comments:**

Rubber Manufacturers Association

Standard No: HS2 (1982)**Date:**

1982

Title: Standard Abrasion Test Procedure for Use on Rubber Abrasion Machine**Lubricated /Un:** U**Material(s):** rubber**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:**

SAE: Society of Automotive Engineers

Standard No: SAE AMS 2525**Date:**

1983

Title: Coating, Thin Lubricating Film, Graphite, Impingement Applied**Lubricated /Un:** L**Material(s):** graphite**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** graphite films**Special Environments:****Other Comments:** related to an ANSI standard

Standard No: SAE AMS 2526A**Date:** 1983**Title:** Coating, Thin Lubricating Film, Molybdenum Disulphide, Impingement Applied**Lubricated /Un:** L **Material(s):** molybdenum disulphide**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** molybdenum disulphide films**Special Environments:****Other Comments:** related to an ANSI standard

Standard No: SAE AMS 3138/1**Date:** 1980**Title:** Specification for Coating Material, Fluorocarbon, Elastomeric, Rain Erosion Resistant, Black**Lubricated /Un:** U **Material(s):** fluorocarbon elastomer, coatings**Test Method:****Friction Measured?** ☐ **Wear Type:** liquid erosion**Application Areas:****Special Environments:****Other Comments:**

Standard No: SAE AMS 3138/3**Date:** 1980**Title:** Specification for Coating Material, Fluorocarbon, Elastomeric, Rain Erosion Resistant, Coloured**Lubricated /Un:** U **Material(s):** fluorocarbon elastomer, coatings**Test Method:****Friction Measured?** ☐ **Wear Type:** liquid erosion**Application Areas:****Special Environments:****Other Comments:**

Standard No: SAE AMS 3510**Date:** 1984**Title:** Coating, Abrasion Resistant, for Polycarbonate Parts**Lubricated /Un:** U **Material(s):** coatings**Test Method:** coating specification**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:**

Standard No: SAE ARP 1200**Date:****Title:** Practice for Involute Splines, Wear Limit**Lubricated /Un:** U&L **Material(s):** metals or alloys**Test Method:** hardware specification**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** involute splines, wear limit of**Special Environments:****Other Comments:**

Standard No: SAE ARP 1536**Date:** 1978**Title:** Abrasion Test Procedure for Chafe Guard**Lubricated /Un:****Material(s):****Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** chafe guard, abrasion test**Special Environments:****Other Comments:**

Standard No: SAE ARP 1536A**Date:** 1981**Title:** Recommended practice for Abrasion Test Procedure for Chafe Guard**Lubricated /Un:** U**Material(s):** no specific material mentioned**Test Method:** hardware test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** chafe guard, abrasion test for**Special Environments:****Other Comments:** related to ANSI standard

Standard No: SAE ARP 1797**Date:** 1983**Title:** Aircraft and Aircraft Engine Fuel Pump Low Lubricancy Fluid Endurance Test**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:****Special Environments:****Other Comments:**

Standard No: SAE ARP 492**Date:****Title:** Aircraft Engine Fuel Pump Cavitation Endurance Test**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:****Friction Measured?** ☐ **Wear Type:****Application Areas:** fuel pump blades, aircraft engine**Special Environments:** other than air environments**Other Comments:**

Standard No: SAE J 1335**Date:** 1990**Title:** Hydraulic Cylinder No-Load Friction Test**Lubricated /Un:****Material(s):****Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** hydraulic cylinder, friction test**Special Environments:****Other Comments:**

Standard No: SAE J 2115**Date:** 1993**Title:** Brake Performance and Wear Test Code Commercial Vehicle Inertia Dynamometer**Lubricated /Un:****Material(s):****Test Method:****Friction Measured?** ☐ **Wear Type:****Application Areas:** brake performance, commercial vehicles**Special Environments:****Other Comments:**

Standard No: SAE J114**Date:** 1986**Title:** Seat Belt Assembly Webbing Abrasion Performance Requirements**Lubricated /Un:** U**Material(s):** textiles**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** seat belt webbing, abrasion of**Special Environments:****Other Comments:**

Standard No: SAE J1499**Date:** 1987**Title:** Band Friction Test Machine (SAE) Test Procedure**Lubricated /Un:** U&L**Material(s):** no specific material mentioned**Test Method:****Friction Measured?** ☒ **Wear Type:** rolling contact**Application Areas:** automotive transmissions, band friction test**Special Environments:****Other Comments:**

Standard No: SAE J1530**Date:** 1994**Title:** Test Method for Determining Resistance to Abrasion; Bearding; and Fibre Loss of Automotive Carpet Material**Lubricated /Un:** U**Material(s):** textiles**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** automotive carpet**Special Environments:****Other Comments:**

Standard No: SAE J1846**Date:** 1989**Title:** Characterising a Test Surface for Motorcycle Stand Retraction Performance Testing**Lubricated /Un:** U**Material(s):** carpet on asphalt, concrete**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** motorcycle testing**Special Environments:****Other Comments:**

Standard No: SAE J1847**Date:** 1989**Title:** Abrasion Resistance Testing - Vehicle External Graphics and Pin-Striping**Lubricated /Un:** U**Material(s):** polymers**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paint, automotive pin-striping abrasion**Special Environments:****Other Comments:**

Standard No: SAE J286**Date:** 1983**Title:** SAE No. 2 Clutch Friction Test Machine Test Procedure**Lubricated /Un:** L**Material(s):** metals or alloys**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear; galling, seizure, scuffing**Application Areas:** automotive clutch mechanism, friction coefficient specifications,**Special Environments:****Other Comments:**

Standard No: SAE J339**Date:** 1994**Title:** Seat Belt Assembly Abrasion Test Procedure**Lubricated /Un:** U**Material(s):** textiles**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** seat belt webbing, abrasion of**Special Environments:****Other Comments:**

Standard No: SAE J365**Date:** 1985**Title:** Method of Testing Resistance to Scuffing of Trim Materials**Lubricated /Un:** U**Material(s):** textiles, plastics, rubber**Test Method:****Friction Measured?** ☐ **Wear Type:** galling, seizure, scuffing**Application Areas:** automotive trim, rubber**Special Environments:****Other Comments:**

Standard No: SAE J667**Date:** 1961**Title:** Brake Test Code - Inertia Dynamometer**Lubricated /Un:** U**Material(s):** rubber**Test Method:****Friction Measured?** ☐ **Wear Type:** sliding wear**Application Areas:** braking systems**Special Environments:****Other Comments:**

Standard No: SAE J866**Date:** 1985**Title:** Friction Coefficient Identification System for Brake Linings**Lubricated /Un:** U **Material(s):** rubber**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** brake linings, friction coefficient system**Special Environments:****Other Comments:**

Standard No: SAE J948**Date:** 1994**Title:** Test Method For Determining Resistance to Abrasion of Automotive Bodycloth Vinyl and Leather and the Snagging of Automotive Bodycloth**Lubricated /Un:** U **Material(s):** textiles**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion, galling, seizure, scuffing**Application Areas:** automotive interiors, abrasion of automotive bodycloth**Special Environments:****Other Comments:**

Standard No: SAE J965**Date:** 1966**Title:** Abrasive Wear - Informational Report**Lubricated /Un:** U&L **Material(s):** no specific material mentioned**Test Method:** general review**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:****Special Environments:****Other Comments:**

Society of Motion Picture Technicians and Engineers

Standard No: SMPTE RP48 (1985)**Date:** 1985**Title:** Recommended Practice for Lubrication of 16mm and 8mm Motion Picture Film by the Paper Clip Method**Lubricated /Un:** U&L **Material(s):** film**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** lubrication of movie film**Special Environments:****Other Comments:**

TAPP: Technical Association of the Pulp & Paper Industry

Standard No: TAPPI 476**Date:** 1984**Title:** Abrasion Loss of Paper and Paperboard**Lubricated /Un:** U**Material(s):** paper and board**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** paper and board, abrasion**Special Environments:****Other Comments:**

Standard No: TAPPI 685-DM**Date:** 1981**Title:** Test Method for Abrasion Resistance of Wax Coating**Lubricated /Un:** U**Material(s):** wax, coatings**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** wax coatings, abrasion of**Special Environments:****Other Comments:**

Standard No: TAPPI T476TS**Date:****Title:** Abrasion Loss of Packaging Materials**Lubricated /Un:** U**Material(s):** paper products, packaging**Test Method:****Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** packaging materials, abrasion of**Special Environments:****Other Comments:**

Standard No: TAPPI T503SU**Date:****Title:** Coefficient of Static Friction of Shipping Sack Papers (Inclined Plane Method)**Lubricated /Un:** U**Material(s):** paper**Test Method:****Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** shipping sacks, friction of papers**Special Environments:****Other Comments:**

Standard No: TAPPI T664SU**Date:****Title:** Coefficient of Kinetic Friction for Waxed Coating**Lubricated /Un:** U**Material(s):** waxed coatings**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** waxed coatings, kinetic friction of**Special Environments:****Other Comments:**

Standard No: TAPPI T816SU**Date:****Title:** Test Method For Coefficient of Kinetic Friction for Solid and Corrugated Fibreboard**Lubricated /Un:** U**Material(s):** fibreboard**Test Method:** general laboratory test**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** fibreboard, friction**Special Environments:****Other Comments:**

Standard No: TAPPI UM-462 (1978)**Date:** 1978**Title:** Wet Rub of Coated Paper (Brush in Taber Abrader)**Lubricated /Un:** U**Material(s):** paper**Test Method:** Taber abrader**Friction Measured?** ☒ **Wear Type:** sliding wear**Application Areas:** coated papers, abrasion**Special Environments:** lubricated with water**Other Comments:**

Standard No: TAPPI UM-603**Date:****Title:** Test Method for Abrasiveness of Pigments and Fillers**Lubricated /Un:** U**Material(s):** Pigments and fillers, paper packaging**Test Method:** general laboratory test**Friction Measured?** ☐ **Wear Type:** abrasion**Application Areas:** pigments and fillers, abrasiveness of**Special Environments:****Other Comments:**

Application	Code for Standard	Country
abrasive pin test	PIN-TEST.CETIM (1984)	F
aerospace materials, sand abrasion of transparent plastics	ASTM F 735-94	US
aggregate wear by studded tyres	94/108070 DC, Draft	UK
aggregate, coarse, abrasion	JIS-A1120	J
aggregate, coarse, abrasion	JIS-A1121	J
aggregates	93/104822 DC, Draft	UK
aggregates	EN 1097 PT1	I
aggregates	NFP 18-572	F
aggregates, pendulum friction test	AS 1141:PT42	As
air blast erosion of organic coatings	ASTM D 658-91	US
alumina, friction and wear	ASTM STP 1167	US
alumina, sliding wear	ASTM STP 1167	US
alumina, sliding wear	ASTM STP 1167	US
anodic oxidation coatings Al and alloys	JIS-H8682	J
anodic oxidation coatings on Al and alloys	ISO 8252	I
automotive carpet	SAE J1530	US
automotive clutch mechanism, friction coefficient specificatio	SAE J286	US
automotive interiors, abrasion of automotive bodycloth	SAE J948	US
automotive transmissions, band friction test	SAE J1499	US
automotive trim, rubber	SAE J365	US
automotive tyres	ASTM F 1046-87, G	US
automotive tyres	ASTM F 377-86	US
automotive tyres	ASTM F 424-86	US
automotive tyres	ASTM F 554-78	US
automotive tyres, traction in cornering	ASTM F 376-79	US
automotive tyres, traction in cornering	ASTM F 534-86	US
automotive tyres, tyre tread wear data analysis	ASTM F 1016-86, P	US
automotive tyres, wet traction	ASTM F 403-86	US
automotive tyres, wet traction	ASTM F 408-86	US
automotive water pumps	ASTM D 2966 (Discontinued 1983)	US
ball bearings	MIL-STD-206	US
ball-joint, greases for	ASTM D 3428-86 (Discontinued 199	US
ball-on-disc	DIN 50324	G
bearing materials	94/714026 DC, Draft	UK
bearing materials, anti-friction	DIN 50282	G
bearing, roller, with grease	DIN 51806 PT2	G
bearings	ASTM STP 1167	US
bearings	DIN 50280	G
bearings	ISO TR 6281-	I
bearings and seal materials, carbon and graphite, friction, desc	ASTM C 808-75 (Reapproved 1995),	US
bearings, friction and wear tests	DIN 1496	G
bearings, friction and wear tests	DIN ISO 7148 PT1	G
bearings, friction and wear tests	ISO 7148/1	I
bearings, friction and wear tests	UNI ISO 7148/1	It
bearings, friction, types, definitions	DIN 50281	G
bearings, plain, plastic bearing materials	DIN 31680	G

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Application	Code for Standard	Country
bearings, plain, terms	DIN 31661	G
board containers, materials handling applications, friction	ASTM D 4521-91	US
bolts and nut assemblies, coefficient of friction	DIN 946	G
brake linings	DIN 15436	G
brake linings, friction coefficient system	SAE J866	US
brake performance, commercial vehicles	SAE J 2115	US
brake shoes, railroad	MSRPE 30	US
brake shoes, railroad	MSRPE 36	US
braking systems	SAE J667	US
British portable tester	ASTM E 303	US
building material abrasion	JIS-A1453	J
building materials, abrasion resistance	JIS-A1452	J
cable-to-cable abrasion	97/700653 DC, Draft	UK
calibration of block-on-ring testing machine	ASTM D 2714-94	US
catalyst, breakage	ASTM D 4058-92	US
cavitation erosion in flowing systems and hydraulic machines	ASTM G 32-92	US
cemented carbides, abrasion	ASTM B 611-85 (1991)	US
ceramic cutting tools	ASTM STP 1010	US
ceramic floor and wall tiles, abrasion resistance	BS 6431:PT14	UK
ceramic floor and wall tiles, abrasion resistance	BS 6431:PT20	UK
ceramic floor and wall tiles, abrasion resistance	EN 102	I
ceramic floor and wall tiles, abrasion resistance	EN 154	I
ceramic tile for floor covering	ASTM C 1243-93	US
ceramic tiles, abrasion	ASTM C 1027-84 (reapproved 1990)	US
ceramic tiles, abrasion	ASTM C 501-84 (Reapproved 1992)	US
ceramic tiles, coefficient of friction	95/105502, Draft	UK
ceramics, friction and wear	ASTM STP 1010	US
ceramics, rod-on-flat test	ASTM STP 1010	US
cereal grains, friction	ASAE D242.1a	US
chafe guard, abrasion test	SAE ARP 1536	US
chafe guard, abrasion test for	SAE ARP 1536A	US
chopped forages, friction	ASAE D242.1	US
clutch, friction	ASTM B 526 (Discontinued 1992)	US
clutches, friction retention	ASTM D 4736-87	US
coal and coke, abrasion index	BS 1016:PT111	UK
coated papers, abrasion	TAPPI UM-462 (1978)	US
coatings, friction	ASTM D 4518-91	US
coatings, thin film baked, abrasion resistance	NACE TM 03 75	US
coke, breakage	ASTM D 3402-93	US
concrete surface abrasion	ASTM C 779-89a	US
concrete, abrasion	ASTM D 4259-83	US
concrete, underwater abrasion	ASTM C 1138-89	US
connector, wear effect on electrical properties	ASTM B 794-93	US
construction, traffic on concrete surfaces, abrasion	ASTM C 418-90	US
conveyor belts	94/307255 DC, Draft	UK
corrosion and wear	ASTM G 119-93, G	US

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Application	Code for Standard	Country
crushing equipment, mining and earthmoving	ASTM G 81-83 (1989), P	US
data comparison	ASTM G 118-95, G	US
diesel engines	ASTM STP 1010	US
diesel engines	ASTM STP 1199	US
down-hole mortar	ASTM STP 1167	US
electrical cables, aircraft use	NFL 52-250-53	F
electrical cables, aircraft use	PREN 3475-503	F
electrical insulation, coefficient of friction	BS 5961	UK
electrical insulation, coefficient of friction	IEC 648	I
electrical insulation, coefficient of friction	NEN NPR 10648	N
electrical insulation, coefficient of friction	NFC 26-251	F
electrical wiring	ASTM D 2132-89	US
electrical wiring	ASTM D 2303-95	US
enamels, vitreous and porcelain	DIN 51152	G
enamels, vitreous and porcelain	DIN ISO 6370 PT1	G
enamels, vitreous and porcelain	ISO 6370/1-	I
enamels, vitreous and porcelain, sub-surface abrasion	DIN ISO 6370 PT2	G
engine coolants for automotive water pumps	ASTM D 2809-94	US
erosion resistance of materials	ASTM G 76-95	US
exterior painting, erosion	ASTM D 662-93	US
fabric printer ribbon, abrasion	ASTM G 56-82 (1995)	US
fabrics	AATCC 93	US
fabrics, abrasion resistance	BS 5690	UK
fabrics, colour change	AATCC 119	US
fabrics, colour change	AATCC 120	US
fibre ropes, resistance to abrasion	AS 4143.6	As
fibre ropes, resistance to flexion and surface abrasion	AS 4143.5	As
fibre-reinforced polymer composites, fretting wear	ASTM STP 1167	US
fibreboard, friction	ASTM D 3247-84 (Discontinued 198	US
fibreboard, friction	ASTM D 3248-84 (Discontinued 198	US
fibreboard, friction	TAPPI T816SU	US
film-insulated magnet wire, coefficient of friction	NEMA MW 750	US
fire hoses, abrasion resistance	DIN 14811 (PT3)	G
flat-on-flat, high temperature	Not numbered, G	F
floor coatings	ASTM D 1395-74 (Discontinued 198	US
floor coatings, coatings for ship decks, abrasion	ASTM D 968-93	US
floor covering	ASTM F 410-82	US
floor coverings, abrasion	ASTM F 510-93	US
flooring materials, abrasion and impact resistance	JIS-A1451	J
flooring, wear of maple	MFMA 1 (1982)	US
flowing systems and hydraulic machines	ASTM G 134-95	US
fretting test of greases	ASTM D 4170-87	US
friability of grains	ANSI B74.8	US
friction coefficient	EC01-EC03-EC05 (1992)	F
friction coefficient, determining the	PN-70/M-04307 (1970)	P
friction grip bolts, coefficient of friction	NFP 22-461	F

Application	Code for Standard	Country
friction measurement	ASTM G 115-93, G	US
friction properties of materials	JIS-M2501	J
friction testing, substrate preparation for	ASTM D 4103-82, P	US
friction testing, three-roller and cone	PN-83/H-04302 (1983)	P
friction testing, with an abrasive layer	PN-81/H-04328 (1981)	P
fuel pump blades, aircraft engine	SAE ARP 492	US
gears, lubricant characterisation	DIN 51354 PT1	G
gears, lubricant characterisation	DIN 51354 PT2	G
gears, lubricant characterisation	DIN 51354 PT3	G
gears, lubricant characterisation	IP 334	UK
gears, tooth damage on, atlas of wear	AGMA 110.03	US
glass for road vehicles, abrasion testing	ISO 3537-	I
graphite films	SAE AMS 2525	US
greases	ASTM D 2266-91	US
greases for automotive wheel bearings	ASTM D 3527-95	US
greases, anti-wear	ASTM D 3704-90	US
greases, extreme pressure	IP326	UK
grinding wheel wear test	DIN 52108	G
guards for power take-off (PTO) drive shafts, wear	BS EN 1152	UK
guards for power take-off (PTO) drive shafts, wear	DIN EN 1152	G
guards for power take-off (PTO) drive shafts, wear	EN 1152	I
highway and bridge concrete subject to traffic, abrasion	ASTM C 944-90a	US
highway paving	AASHTO T3	US
highway paving, abrasion	ASTM C 131-89	US
highway paving, aggregate degradation	ASTM C 535-89	US
highway paving, friction	AASHTO T242 (1980)	US
highway paving, gravel, roadway	AASHTO T4	US
highway paving, skid resistance, full-scale tyres	ASTM E 274-85	US
hip joint prostheses, evaluation	BS 7251:PT7(1990)	UK
hip joint prostheses, evaluation	BS 7251:PT8(1990)	UK
hip joint prostheses, evaluation	ISO 9326-	I
hoses, rubber /plastic, outer cover	BS 5173:PT103:SEC103.9	UK
hoses, rubber/plastic, outer cover	BS EN ISO 6945	UK
hydraulic cylinder, friction test	SAE J 1335	US
Interlaboratory tests	ASTM G 117-93, G	US
involute splines, wear limit of	SAE ARP 1200	US
iron ore pellets and sinter, degradation	ASTM E 279-92	US
iron ores, tumbler strength	BS 6212	UK
iron ores, tumbler strength	BS ISO 3271	UK
journal box, railroad	MSRPB 53	US
journal box, railroad	MSRPB 54	US
lubricant characterisation	ASTM D 4172-94	US
lubricant characterisation	DIN 51350 PT1	G
lubricant characterisation	DIN 51350 PT3	G
lubricant characterisation	DIN 51350 PT4	G
lubricant characterisation	DIN 51350 PT5	G

Application	Code for Standard	Country
lubricant characterisation	DIN 51350 PT6	G
lubricant characterisation, hydraulic fluids	ASTM D 2882-90	US
lubricant characterisation, hydraulic fluids	DIN 51389 PT1	G
lubricant characterisation, hydraulic fluids	DIN 51389 PT2	G
lubricant characterisation, hydraulic fluids	DIN 51389 PT3	G
lubricant characterisation, hydraulic fluids	DIN 51509 PT1	G
lubricant characterisation, hydraulic fluids	IP 281	UK
lubricant characterisation, welding load	DIN 51350 PT2	G
lubricants, bonded solid	ASTM D 2981-94	US
lubricants, dry film, in vacuum	ASTM D 2716 (Discontinued 1982)	US
lubricants, dry solid film, in steel-on-steel applications	ASTM D 2625-94	US
lubricants, fluid	ASTM D 2670-94	US
lubricants, load carrying capacity	JIS-K2519	J
lubricating fluids, evaluation	ASTM D 3233-93	US
lubricating fluids, extreme pressure	ASTM D 2782-94	US
lubricating fluids, extreme pressure	ASTM D 2783-88 (Reapproved 1993)	US
lubricating fluids, friction	ASTM D 5183-95	US
lubricating greases, evaluation	ASTM D 3336-91	US
lubricating greases, load-carrying capacity	ASTM D 2509-93	US
lubricating greases, load-carrying capacity	ASTM D 2596-93	US
lubrication of movie film	SMPTE RP48 (1985)	US
lubrication of sintered metallic materials	ASTM B 461 (Discontinued 1992)	US
lubrication qualities of graphites	ASTM D 1367-90	US
lubrication qualities of graphites	ASTM D 1553-83 (Discontinued 199)	US
lubricity, of gasoline engine lubricants	ASTM D 4863-88	US
magnetic media, memory storage, friction	ANSI X3.112 (1984)	US
mechanical seals	ASTM STP 1167	US
medical implants, plates and screws	ASTM F 897-84,P	US
metal couples, wear resistance	ASTM G 83-90	US
metal friction materials	ASTM B 559	US
metals	PN-67/M-04306 (1967)	P
metals	PN-75/M-04308 (1975)	P
metals	PN-79/H-04329 (1979)	P
metals	PN-82/H-04332 (1982)	P
metals in hydraulic fluid	ASTM D 2271-94	US
molybdenum disulphide films	SAE AMS 2526A	US
motorcycle testing	SAE J1846	US
oil and synthetic gear lubricants, load-carrying capacity	ASTM D 1947-93	US
oil friction materials	EC02-EC04 (1992) G	F
oil lubricants	DIN 51509 PT2	G
oils, extreme pressure	IP240	UK
oils, load carrying capacity	IP166	UK
organic coatings, abrasion	ASTM D 4060-95	US
oxide coatings of Al and alloys	BS 6161:PT9(1987)	UK
oxide coatings on Al and alloys	AS 2039:PT5.1	As
oxide coatings on Al and alloys	AS 2039:PT5.2	As

Application	Code for Standard	Country
oxide coatings on Al and alloys	ISO 8251 -	I
packaging materials, abrasion of	TAPPI T476TS	US
paint, abrasion by scrubbing	ASTM D 4213-95	US
paint, automotive pin-stripping abrasion	SAE J1847	US
paint, resistance to abrasion	92/54597/DC, Draft	UK
paint, resistance to abrasion	95/120402 DC, Draft	UK
paint, resistance to abrasion	95/120403 DC, Draft	UK
paint, resistance to abrasion	BS 3900:PTE14(1997)	UK
paint, resistance to abrasion	BS 3900:PTE15(1997)	UK
paint, scratch resistance	NFT 30-015	F
paints on motor vehicles, abrasion resistance	BS AU148:PT4	UK
paper and board, abrasion	TAPPI 476	US
paper and board, abrasion of	DIN 53109	G
paper and board, friction of	IPP 110.3	US
paper and board, friction of	JIS-P8147	J
paper, waxed	ASTM D 3234-88 (Reapproved 1993)	US
pavement, friction of	ASTM E 670-87	US
pavement, friction, skid resistance	ASTM E 707-84	US
pavement, surface friction on	ASTM E 510, P	US
paving products, abrasion	SS 22 72 10	S
petroleum wax coated articles	ASTM D 2534-88 (Reapproved 1993)	US
photographic films, abrasion of	ANSI PH4.35	US
pigments and fillers, abrasiveness of	TAPPI UM-603	US
pin-on-disc	Not numbered, G	F
pin-on-disc	TBV.CETIM, G	F
pin-on-disc, high speed	TGV-CETIM (1989), G	F
pin-on-disc, vacuum conditions	Not numbered, G	F
pin-on-disk test method	ASTM G 99-95a	US
pipeline coatings, wear test	ASTM G 6-88, (1992)	US
pipes, clay fittings and joints for drains/sewers	BS EN 295 PT3	UK
plastic film and sheeting	94/304241 DC, Draft	UK
plastic film and sheeting, abrasion	JIS-K7125	J
plastic film, impact resistance	ASTM D 1709-91	US
plastic films for packaging	ASTM D 1894-95	US
plastic films, friction test for	BS2782:PT8:MTD824A	UK
plastic films, friction test for	DIN 53375	G
plastic films, friction test for	ISO 8295-	I
plastic materials, abrasion	ASTM D 1242-95a	US
plastic materials, wear resistance	ASTM G 137-95	US
plastic plain bearings, friction	ASTM STP 1199	US
plastic sheets, coefficient of friction	NFT 54-112	F
plastic solids and sheeting, friction	ASTM D 3028-93	US
plastic window materials, abrasion	ASTM D 1044-94	US
plastics	NFT 51-110	F
plastics and glass, abrasion testing of	DIN 52347	G
plastics and glass, sand trickling abrasion of	DIN 52348	G

Application	Code for Standard	Country
plastics or coatings, abrasion	ASTM F 1128-88	US
plastics, abrasion	JIS-K7205	J
plastics, abrasion by wheels	JIS-K7204	J
plastics, abrasive disc test for	DIN 53754	G
plastics, friction and wear by sliding	ISO 6601-	I
plastics, friction and wear by sliding	NEN ISO 6601	N
plastics, friction and wear, definitions	NFT 51-108	F
plastics, sliding wear of	JIS-K7218	J
polished coated surface, static friction	BUL 211.1	US
polymers for joint prostheses, reciprocating test	ASTM F 732-82 (Reapproved 1991),	US
porcelain enamels, surface and subsurface abrasion	ASTM C 448-88 (Reapproved 1994)	US
porcelain fixtures	T-2	US
printed image rubbing against paper	ASTM F 1571-95	US
printed materials used in packaging, abrasion	ASTM D 5181-91	US
printed materials used in packaging, abrasion	ASTM D 5264-92	US
printed page rubbing against paper	ASTM F 1319-94	US
printed surfaces, abrasion by rubbing of hands	BS EN 60068 PT2-70	UK
printed surfaces, abrasion by rubbing of hands	DIN EN 60068 PT2-70	G
printed surfaces, abrasion by rubbing of hands	EN 60068 PT2-70	I
printed surfaces, abrasion by rubbing of hands	IEC 68 PT2-70	I
protective clothing, abrasion resistance	BS EN 530	UK
protective clothing, abrasion resistance	DIN EN 530	G
protective clothing, abrasion resistance	EN 530	I
quarry products	NFB 10-508	F
railway rails	35	US
ranking materials for abrasion resistance	ASTM G 132-95	US
ranking materials for resistance to sliding wear	ASTM G 77-93	US
ranking materials for use in abrasive environments	ASTM G 105-89	US
ranking materials for use in abrasive environments	ASTM G 65-94	US
ranking resistance of material couples to failure by galling	ASTM G 98-91	US
refractory materials in abrasive or erosive environments	ASTM C 704-94	US
refractory materials, abrasability index	AS1774.23	As
refrigerating equipment	DIN 8978	G
resistance of materials to liquid impact	ASTM G 73-93, P	US
ribbons, inked, computer	ASTM F 153-83	US
ribbons, inked, typewriter	ASTM F 92-84	US
road vehicles brake linings	ISO 7881-	I
road vehicles brake linings	UNI ISO 7881	It
rotary operators for windows	ASTM E 405-89	US
rubber and elastomers, abrasion of	DIN 53516	G
rubber coated fabrics, abrasion	ASTM D 3389-94	US
rubber compounds for soles and heels of footwear, abrasion	ASTM D 1630-94	US
rubber compounds, abrasion	ASTM D 2228-88	US
rubber, abrasion	ISO 4649-	I
rubber, abrasion resistance	96/122202 DC, Draft	UK
rubber, abrasion resistance	AS 1683.21	As

Application	Code for Standard	Country
rubber, slip resistance of	ASTM E 503-82	US
rubber-coated tiles, abrasion of	DIN 53528	G
rubbing components	ASTM G 133-95	US
sanitary appliances, abrasion resistance	NFD 14-501	F
seat belt webbing, abrasion of	SAE J114	US
seat belt webbing, abrasion of	SAE J339	US
self-lubricating materials	ASTM D 3702-94	US
sheet metal forming lubricants	ASTM D 4173-82, P	US
shipping sacks, friction of papers	TAPPI T503SU	US
shoe & floor, slip resistance	ASTM C 1028-89	US
shoe materials sliding against walking surfaces	ASTM F 489-96	US
shoelaces, abrasion resistance	BS 5131:PT3:SEC3.6	UK
silicon nitrides, sliding wear	ASTM STP 1167	US
sintered metallic materials, friction	ASTM B 460 (Discontinued 1992)	US
slurries produced in mining, abrasion	ASTM STP 1199	US
slurries, slurry pumping systems for construction materials, ab	ASTM G 75-95	US
slurry pumping	ASTM STP 946	US
soft goods, abrasion resistance of	DA 20.0	US
sports surfaces, durability	BS 7044:PT2:SEC2.3	UK
terminology	ASTM G 40-95	US
textiles	ASTM D 3181-95, G	US
textiles used with geotechnical materials	ASTM D 4886-88 (Reapproved 1995)	US
textiles, abrasion	ASTM D 3884-92	US
textiles, abrasion	ASTM D 3885-92	US
textiles, abrasion	ASTM D 3886-92	US
textiles, abrasion	ASTM D 4157-92	US
textiles, abrasion	ASTM D 4158-92	US
textiles, abrasion resistance	AS 2001.2.28	As
textiles, abrasion resistance	DIN 53863 PT1	G
textiles, abrasion resistance	DIN 53863 PT2	G
textiles, abrasion resistance	DIN 53863 PT4	G
textiles, colour fastness test	JIS-L0849	J
textiles/geotextiles, abrasion resistance	95/124796 DC, Draft	UK
thermal insulation, abrasion	ASTM C 421-88	US
threaded fasteners	DIN 65497 PT1	G
Tillage equipment	ASTM STP 1199	US
traffic markings, abrasion of paint on roads	ASTM D 821(Discontinued 1984)	US
traffic paint on road surface	ASTM D 913-88 (Reapproved 1993)	US
tribology terms	DIN 50323 PT1	G
tribology terms	DIN 50323 PT2	G
tribology terms	DIN 50323 PT3	G
tribology terms	DIN 50323 PT4	G
tyre for use in testing, friction	AASHO M261 (1987)	US
tyre for use in testing, friction	AASHO M286 (1981)	US
vitreous enamel coatings, abrasion resistance	AS 2219:PT2.3	As
vitreous enamel finishes, abrasion resistance	BS 1344:PT4	UK

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walkway surface and shoe material, friction	ASTM D 2047-93	US
walkways, foot traffic, wear of stone, abrasion	ASTM C 241-90	US
wall coatings, abrasion	ASTM D 3730-94, G	US
wax coatings, abrasion of	TAPPI 685-DM	US
waxed coatings, kinetic friction of	TAPPI T664SU	US
weak rocks in service environment, durability	ASTM D 4644-97 (Reapproved 1992)	US
wear quantities	DIN 50321, G	G
wear terms and classifications	DIN 50320	G
wear testing, categories	DIN 50322	G
wheelchairs, coefficient of friction of floor surfaces	AS 3696.13	As
wheelchairs, coefficient of friction of floor surfaces	CSA Z323.4.9	C
wheelchairs, coefficient of friction of floor surfaces	ISO 7176/13-	I
wood, abrasion test	JIS-Z2141	J
wood, abrasion test for	JIS-Z2141	J
wood-based panels, surface abrasion	AS 4266.20	As
wrap films used in packaging, abrasion	ASTM D 5416-95	US
yarn to metal, friction	ASTM D 3108-95	US
yarn to yarn friction	ASTM D 3412-94	US

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abrasive pin test	PIN-TEST.CETIM (1984)	F
aggregates, pendulum friction test	AS 1141:PT42	As
alumina, friction and wear	ASTM STP 1167	US
alumina, sliding wear	ASTM STP 1167	US
alumina, sliding wear	ASTM STP 1167	US
automotive clutch mechanism, friction coefficient specificatio	SAE J286	US
automotive transmissions, band friction test	SAE J1499	US
automotive tyres	ASTM F 377-86	US
automotive tyres	ASTM F 424-86	US
automotive tyres	ASTM F 554-78	US
automotive tyres, traction in cornering	ASTM F 376-79	US
automotive tyres, traction in cornering	ASTM F 534-86	US
automotive tyres, wet traction	ASTM F 403-86	US
automotive tyres, wet traction	ASTM F 408-86	US
ball bearings	MIL-STD-206	US
ball-joint, greases for	ASTM D 3428-86 (Discontinued 199	US
ball-on-disc	DIN 50324	G
bearings	ASTM STP 1167	US
bearings and seal materials, carbon and graphite, friction, desc	ASTM C 808-75 (Reapproved 1995),	US
bearings, friction and wear tests	DIN 1496	G
bearings, friction and wear tests	DIN ISO 7148 PT1	G
bearings, friction and wear tests	ISO 7148/1	I
bearings, friction and wear tests	UNI ISO 7148/1	It
bearings, plain, plastic bearing materials	DIN 31680	G
board containers, materials handling applications, friction	ASTM D 4521-91	US
bolts and nut assemblies, coefficient of friction	DIN 946	G
brake linings	DIN 15436	G
brake linings, friction coefficient system	SAE J866	US
British portable tester	ASTM E 303	US
calibration of block-on-ring testing machine	ASTM D 2714-94	US
ceramic cutting tools	ASTM STP 1010	US
ceramic tiles, coefficient of friction	95/105502, Draft	UK
ceramics, friction and wear	ASTM STP 1010	US
ceramics, rod-on-flat test	ASTM STP 1010	US
cereal grains, friction	ASAE D242.1a	US
chopped forages, friction	ASAE D242.1	US
clutch, friction	ASTM B 526 (Discontinued 1992)	US
coated papers, abrasion	TAPPI UM-462 (1978)	US
coatings, friction	ASTM D 4518-91	US
conveyor belts	94/307255 DC, Draft	UK
crushing equipment, mining and earthmoving	ASTM G 81-83 (1989), P	US
diesel engines	ASTM STP 1010	US
diesel engines	ASTM STP 1199	US

Application	Code for Standard	Country
down-hole mortar	ASTM STP 1167	US
electrical insulation, coefficient of friction	BS 5961	UK
electrical insulation, coefficient of friction	IEC 648	I
electrical insulation, coefficient of friction	NEN NPR 10648	N
electrical insulation, coefficient of friction	NFC 26-251	F
fibre-reinforced polymer composites, fretting wear	ASTM STP 1167	US
fibreboard, friction	ASTM D 3247-84 (Discontinued 198	US
fibreboard, friction	ASTM D 3248-84 (Discontinued 198	US
fibreboard, friction	TAPPI T816SU	US
film-insulated magnet wire, coefficient of friction	NEMA MW 750	US
flat-on-flat, high temperature	Not numbered, G	F
friction coefficient	EC01-EC03-EC05 (1992)	F
friction coefficient, determining the	PN-70/M-04307 (1970)	P
friction grip bolts, coefficient of friction	NFP 22-461	F
friction measurement	ASTM G 115-93, G	US
friction properties of materials	JIS-M2501	J
friction testing, three-roller and cone	PN-83/H-04302 (1983)	P
friction testing, with an abrasive layer	PN-81/H-04328 (1981)	P
greases, anti-wear	ASTM D 3704-90	US
greases, extreme pressure	IP326	UK
highway paving, skid resistance, full-scale tyres	ASTM E 274-85	US
hydraulic cylinder, friction test	SAE J 1335	US
lubricants, bonded solid	ASTM D 2981-94	US
lubricants, dry film, in vacuum	ASTM D 2716 (Discontinued 1982)	US
lubricants, dry solid film, in steel-on-steel applications	ASTM D 2625-94	US
lubricants, load carrying capacity	JIS-K2519	J
lubricating fluids, evaluation	ASTM D 3233-93	US
lubricating fluids, extreme pressure	ASTM D 2782-94	US
lubricating fluids, extreme pressure	ASTM D 2783-88 (Reapproved 1993)	US
lubricating fluids, friction	ASTM D 5183-95	US
lubricating greases, evaluation	ASTM D 3336-91	US
lubrication of movie film	SMPTE RP48 (1985)	US
lubrication of sintered metallic materials	ASTM B 461 (Discontinued 1992)	US
magnetic media, memory storage, friction	ANSI X3.112 (1984)	US
mechanical seals	ASTM STP 1167	US
metal couples, wear resistance	ASTM G 83-90	US
motorcycle testing	SAE J1846	US
oil friction materials	EC02-EC04 (1992) G	F
oils, extreme pressure	IP240	UK
paper and board, friction of	IPP 110.3	US
paper and board, friction of	JIS-P8147	J
pavement, friction of	ASTM E 670-87	US
pavement, friction, skid resistance	ASTM E 707-84	US

Application	Code for Standard	Country
pavement, surface friction on	ASTM E 510, P	US
petroleum wax coated articles	ASTM D 2534-88 (Reapproved 1993)	US
pin-on-disc	Not numbered, G	F
pin-on-disc	TBV.CETIM, G	F
pin-on-disc, high speed	TGV-CETIM (1989), G	F
pin-on-disc, vacuum conditions	Not numbered, G	F
pin-on-disk test method	ASTM G 99-95a	US
plastic film and sheeting	94/304241 DC, Draft	UK
plastic film and sheeting, abrasion	JIS-K7125	J
plastic films for packaging	ASTM D 1894-95	US
plastic films, friction test for	BS2782:PT8:MTD824A	UK
plastic films, friction test for	DIN 53375	G
plastic films, friction test for	ISO 8295-	I
plastic materials, wear resistance	ASTM G 137-95	US
plastic plain bearings, friction	ASTM STP 1199	US
plastic sheets, coefficient of friction	NFT 54-112	F
plastic solids and sheeting, friction	ASTM D 3028-93	US
plastics	NFT 51-110	F
plastics, abrasion	JIS-K7205	J
plastics, abrasion by wheels	JIS-K7204	J
plastics, friction and wear by sliding	ISO 6601-	I
plastics, friction and wear by sliding	NEN ISO 6601	N
plastics, friction and wear, definitions	NFT 51-108	F
plastics, sliding wear of	JIS-K7218	J
polished coated surface, static friction	BUL 211.1	US
polymers for joint prostheses, reciprocating test	ASTM F 732-82 (Reapproved 1991),	US
ranking materials for resistance to sliding wear	ASTM G 77-93	US
road vehicles brake linings	ISO 7881-	I
rubber, slip resistance of	ASTM E 503-82	US
rubbing components	ASTM G 133-95	US
self-lubricating materials	ASTM D 3702-94	US
shipping sacks, friction of papers	TAPPI T503SU	US
shoe & floor, slip resistance	ASTM C 1028-89	US
shoe materials sliding against walking surfaces	ASTM F 489-96	US
silicon nitrides, sliding wear	ASTM STP 1167	US
sintered metallic materials, friction	ASTM B 460 (Discontinued 1992)	US
threaded fasteners	DIN 65497 PT1	G
tyre for use in testing, friction	AASHO M261 (1987)	US
tyre for use in testing, friction	AASHO M286 (1981)	US
walkway surface and shoe material, friction	ASTM D 2047-93	US
waxed coatings, kinetic friction of	TAPPI T664SU	US
wheelchairs, coefficient of friction of floor surfaces	AS 3696.13	As
wheelchairs, coefficient of friction of floor surfaces	CSA Z323.4.9	C

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Application	Code for Standard	Country
wheelchairs, coefficient of friction of floor surfaces	ISO 7176/13-	I
wood, abrasion test for	JIS-Z2141	J
yarn to metal, friction	ASTM D 3108-95	US
yarn to yarn friction	ASTM D 3412-94	US

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Material(s)	Code for Standard	Country
abrasive grains	ANSI B74.8	US
aggregate	93/104822 DC, Draft	UK
aggregate	94/108070 DC, Draft	UK
aggregate	AS 1141:PT42	As
aggregate	EN 1097 PT1	I
aggregate	JIS-A1120	J
aggregate	JIS-A1121	J
aggregate	NFP 18-572	F
agricultural products	ASAE D242.1	US
anodic oxidation coating	BS 6161:PT9(1987)	UK
anodic oxidation coating	ISO 8251 -	I
anodic oxidation coating, Al and Al alloys	AS 2039:PT5.1	As
anodic oxidation coating, Al and Al alloys	AS 2039:PT5.2	As
anodic oxidation coating, Al and Al alloys	ISO 8252	I
anodic oxidation coating, Al and Al alloys	JIS-H8682	J
antifriction materials	DIN 50282	G
asphalt and concrete	ASTM E 670-87	US
asphalt and concrete	ASTM E 707-84	US
brake linings	ISO 7881-	I
brake linings	UNI ISO 7881	It
brake shoe materials	MSRPE 36	US
building materials	JIS-A1451	J
building materials	JIS-A1452	J
building materials	JIS-A1453	J
carbon, graphite	ASTM C 808-75 (Reapproved 1995),	US
carpet on asphalt, concrete	SAE J1846	US
catalysts, catalyst carriers	ASTM D 4058-92	US
cemented carbides	ASTM B 611-85 (1991)	US
ceramic tiles	95/105502, Draft	UK
ceramics	ASTM C 1027-84 (reapproved 1990)	US
ceramics	ASTM C 1028-89	US
ceramics	ASTM C 1243-93	US
ceramics	ASTM C 501-84 (Reapproved 1992)	US
ceramics	ASTM STP 1010	US
ceramics	ASTM STP 1010	US
ceramics	ASTM STP 1010	US
ceramics	ASTM STP 1010	US
ceramics	ASTM STP 1167	US
ceramics	ASTM STP 1167	US
ceramics	ASTM STP 1199	US
ceramics	BS 6431:PT14	UK
ceramics	BS 6431:PT20	UK
ceramics	DIN 52108	G
ceramics	EN 102	I
ceramics	EN 154	I
ceramics and plastics	TGV-CETIM (1989), G	F

Material(s)	Code for Standard	Country
ceramics, alumina	ASTM STP 1167	US
ceramics, alumina	ASTM STP 1167	US
ceramics, enamels	DIN 51152	G
ceramics, enamels	DIN ISO 6370 PT1	G
ceramics, enamels	DIN ISO 6370 PT2	G
ceramics, enamels	ISO 6370/1-	I
ceramics, porcelain enamels	T-2	US
ceramics, refractory materials	ASTM C 704-94	US
ceramics, silicon nitride	ASTM STP 1167	US
cereal grains	ASAE D242.1a	US
clay	BS EN 295 PT3	UK
clutch materials	ASTM D 4736-87	US
coal and coke	BS 1016:PT111	UK
coatings	ASTM D 3730-94, G	US
coatings	ASTM D 4518-91	US
coatings	ASTM G 6-88, (1992)	US
coatings	BUL 211.1	US
coatings	NACE TM 03 75	US
coatings	SAE AMS 3510	US
coatings	TM-03-75	US
coatings (wax etc.)	ASTM D 1395-74 (Discontinued 1989	US
coatings (wax)	ASTM D 2047-93	US
coatings, film-insulated magnet wire	NEMA MW 750	US
coatings, metals or alloys	JIS-K6894	J
coatings, paints	92/54597/DC, Draft	UK
coatings, paints	95/120402 DC, Draft	UK
coatings, paints	95/120403 DC, Draft	UK
coatings, paints	BS 3900:PTE14(1997)	UK
coatings, paints	BS 3900:PTE15(1997)	UK
coke	ASTM D 3402-93	US
concrete	156 (1978)	US
concrete	ACI 52-18	US
concrete	ASTM C 1138-89	US
concrete	ASTM C 418-90	US
concrete	ASTM C 779-89a	US
concrete	ASTM D 4259-83	US
concrete, floors	AS 3696.13	As
concrete, floors	CSA Z323.4.9	C
concrete, floors	ISO 7176/13-	I
concrete, mortar	ASTM C 944-90a	US
construction materials	SS 22 72 10	S
cotton textiles	JIS-L0849	J
enamel coating	NFD 14-501	F
fibre ropes	AS 4143.5	As
fibre ropes	AS 4143.6	As
fibreboard	ASTM D 3247-84 (Discontinued 1988	US

Material(s)	Code for Standard	Country
fibreboard	ASTM D 3248-84 (Discontinued 1988)	US
fibreboard	ASTM D 4521-91	US
fibreboard	TAPPI T816SU	US
film	ANSI PH4.35	US
film	SMPTE RP48 (1985)	US
fluorocarbon elastomer, coatings	SAE AMS 3138/1	US
fluorocarbon elastomer, coatings	SAE AMS 3138/3	US
footwear materials	BS 5131:PT3:SEC3.6	UK
friction materials for given applications	EC02-EC04 (1992) G	F
geotextiles	95/124796 DC, Draft	UK
geotextiles	ASTM D 4886-88 (Reapproved 1995)	US
glass	ISO 3537-	I
glass, plastics	DIN 52347	G
glass, plastics	DIN 52348	G
graphite	SAE AMS 2525	US
graphite coatings, metals or alloys	ASTM D 1553-83 (Discontinued 1995)	US
gravel	AASHTO T4	US
insulation	ASTM D 2303-95	US
insulation material	ASTM D 2132-89	US
iron ore	ASTM E 279-92	US
iron ores	BS 6212	UK
iron ores	BS ISO 3271	UK
limestone	NFB 10-508	F
lubricant films	ASTM D 2716 (Discontinued 1982)	US
magnetic media	ANSI X3.112 (1984)	US
metal-ceramic coatings	ASTM STP 946	US
metals (steel)	ASTM STP 1199	US
metals (steel), ceramics, alumina	ASTM STP 1167	US
metals or alloys	35	US
metals or alloys	94/714026 DC, Draft	UK
metals or alloys	AGMA 110.03	US
metals or alloys	ASTM B 460 (Discontinued 1992)	US
metals or alloys	ASTM B 461 (Discontinued 1992)	US
metals or alloys	ASTM B 526 (Discontinued 1992)	US
metals or alloys	ASTM B 794-93	US
metals or alloys	ASTM D 1367-90	US
metals or alloys	ASTM D 1947-93	US
metals or alloys	ASTM D 2266-91	US
metals or alloys	ASTM D 2271-94	US
metals or alloys	ASTM D 2509-93	US
metals or alloys	ASTM D 2596-93	US
metals or alloys	ASTM D 2670-94	US
metals or alloys	ASTM D 2782-94	US
metals or alloys	ASTM D 2783-88 (Reapproved 1993)	US
metals or alloys	ASTM D 2882-90	US
metals or alloys	ASTM D 3428-86 (Discontinued 1990)	US

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Material(s)	Code for Standard	Country
metals or alloys	ASTM D 3527-95	US
metals or alloys	ASTM D 4170-87	US
metals or alloys	ASTM D 4173-82, P	US
metals or alloys	ASTM D 4863-88	US
metals or alloys	ASTM E 405-89	US
metals or alloys	ASTM F 897-84,P	US
metals or alloys	ASTM G 119-93, G	US
metals or alloys	ASTM G 65-94	US
metals or alloys	ASTM G 83-90	US
metals or alloys	ASTM STP 946	US
metals or alloys	ASTM STP 946	US
metals or alloys	ASTM STP 946	US
metals or alloys	ASTM STP 946	US
metals or alloys	ASTM STP 946	US
metals or alloys	DIN 31652	G
metals or alloys	DIN 31653	G
metals or alloys	DIN 31654	G
metals or alloys	DIN 31661	G
metals or alloys	DIN 3979	G
metals or alloys	DIN 51350 PT1	G
metals or alloys	DIN 51350 PT2	G
metals or alloys	DIN 51350 PT3	G
metals or alloys	DIN 51350 PT4	G
metals or alloys	DIN 51350 PT5	G
metals or alloys	DIN 51350 PT6	G
metals or alloys	DIN 51354 PT1	G
metals or alloys	DIN 51354 PT2	G
metals or alloys	DIN 51354 PT3	G
metals or alloys	DIN 51389 PT1	G
metals or alloys	DIN 51389 PT2	G
metals or alloys	DIN 51389 PT3	G
metals or alloys	DIN 51806 PT2	G
metals or alloys	DIN 65497 PT1	G
metals or alloys	DIN 946	G
metals or alloys	IP 281	UK
metals or alloys	IP 334	UK
metals or alloys	IP166	UK
metals or alloys	IP239	UK
metals or alloys	IP240	UK
metals or alloys	IP326	UK
metals or alloys	JIS-B1186	J
metals or alloys	JIS-K2519	J
metals or alloys	JIS-M2501	J
metals or alloys	MIL-STD-206	US
metals or alloys	MSRPB 116	US
metals or alloys	MSRPB 53	US

Material(s)	Code for Standard	Country
metals or alloys	MSRPB 54	US
metals or alloys	MSRPB 97	US
metals or alloys	NFP 22-461	F
metals or alloys	PN-67/M-04306 (1967)	P
metals or alloys	PN-79/H-04329 (1979)	P
metals or alloys	PN-82/H-04332 (1982)	P
metals or alloys	SAE ARP 1200	US
metals or alloys	SAE ARP 1797	US
metals or alloys	SAE ARP 492	US
metals or alloys	SAE J286	US
metals or alloys	TM-01-70	US
metals or alloys	UNI ISO 7148/1	It
metals or alloys (steel), rubber	ASTM STP 946	US
metals or alloys, aircraft cables	97/700653 DC, Draft	UK
metals or alloys, aluminium	ASTM D 2809-94	US
metals or alloys, aluminium	ASTM D 2966 (Discontinued 1983)	US
metals or alloys, brake shoe materials	MSRPE 30	US
metals or alloys, ceramics	DIN 50324	G
metals or alloys, ceramics, other	ASTM G 133-95	US
metals or alloys, coatings	ASTM D 2625-94	US
metals or alloys, coatings	ASTM D 2981-94	US
metals or alloys, friction materials	ASTM B 559	US
metals or alloys, steel	ASTM D 3233-93	US
metals or alloys, steel	ASTM D 3336-91	US
metals or alloys, steel	ASTM D 3704-90	US
metals or alloys, steel	ASTM D 4172-94	US
metals or alloys, steel	ASTM D 5183-95	US
metals or alloys, steel	ASTM STP 946	US
metals, alloys and ceramics	Not numbered, G	F
metals, alloys, ceramics and plastics	Not numbered, G	F
mineral aggregates	ASTM C 131-89	US
mineral aggregates	ASTM C 535-89	US
MMC, composites	ASTM STP 1167	US
molybdenum disulphide	SAE AMS 2526A	US
non-textile floor coverings	ASTM F 410-82	US
non-textile floor coverings	ASTM F 510-93	US
organic coatings	ASTM D 4060-95	US
organic coatings	ASTM D 658-91	US
organic coatings	ASTM D 968-93	US
packaging material	ASTM D 5181-91	US
packaging materials	ASTM D 5264-92	US
paint	ASTM D 662-93	US
paint	ASTM D 821(Discontinued 1984)	US
paint	ASTM D 913-88 (Reapproved 1993)	US
paint, coating	NFT 30-015	F
paint, coatings	ASTM D 4213-95	US

Material(s)	Code for Standard	Country
paint, coatings	BS AU148:PT4	UK
paper	TAPPI T503SU	US
paper	TAPPI UM-462 (1978)	US
paper and board	TAPPI 476	US
paper products, packaging	TAPPI T476TS	US
paper, board	DIN 53109	G
paper, board	JIS-P8147	J
paper, packaging	IPP 110.3	US
paper, print	ASTM F 1319-94	US
paper, print	ASTM F 1571-95	US
paved surfaces	AASHTO T242 (1980)	US
Pigments and fillers, paper packaging	TAPPI UM-603	US
plastic	NFT 51-110	F
plastic film and sheeting	BS 5961	UK
plastic film and sheeting	IEC 648	I
plastic film and sheeting	NEN NPR 10648	N
plastic film and sheeting	NFC 26-251	F
plastic film, coatings	BS2782:PT8:MTD824A	UK
plastic film, friction test for	94/304241 DC, Draft	UK
plastic films	ASTM D 5416-95	US
plastic films, coatings	DIN 53375	G
plastic films, coatings	ISO 8295-	I
plastic sheets	NFT 54-112	F
plastic, fire hoses	DIN 14811 (PT3)	G
plastics	ASTM D 1044-94	US
plastics	ASTM D 1242-95a	US
plastics	ASTM D 1709-91	US
plastics	ASTM D 1894-95	US
plastics	ASTM D 3028-93	US
plastics	ASTM G 137-95	US
plastics	DIN 31680	G
plastics	DIN 53754	G
plastics	ISO 6601-	I
plastics	ISO 9352 -	I
plastics	JIS-K7125	J
plastics	JIS-K7204	J
plastics	JIS-K7205	J
plastics	JIS-K7218	J
plastics	NEN ISO 6601	N
plastics	NFT 51-108	F
plastics, coatings	ASTM F 1128-88	US
plastics, coatings	ASTM F 735-94	US
plastics, rubber	DIN 53516	G
plastics, rubber	ISO 4649-	I
polymer bearings	ASTM STP 1199	US
polymer composites	ASTM STP 1167	US

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Material(s)	Code for Standard	Country
polymers	ASTM F 732-82 (Reapproved 1991), P	US
polymers	DIN 15436	G
polymers	SAE J1847	US
porcelain enamels (ceramics)	ASTM C 448-88 (Reapproved 1994)	US
printed surfaces	BS EN 60068 PT2-70	UK
printed surfaces	DIN EN 60068 PT2-70	G
printed surfaces	EN 60068 PT2-70	I
printed surfaces	IEC 68 PT2-70	I
refractory materials	AS1774.23	As
rock	ASTM D 4644-97 (Reapproved 1992)	US
rubber	96/122202 DC, Draft	UK
rubber	AASHO M261 (1987)	US
rubber	AASHO M286 (1981)	US
rubber	ASTM D 1630-94	US
rubber	ASTM D 2228-88	US
rubber	ASTM F 1016-86, P	US
rubber	ASTM F 1046-87, G	US
rubber	ASTM F 376-79	US
rubber	ASTM F 377-86	US
rubber	ASTM F 403-86	US
rubber	ASTM F 408-86	US
rubber	ASTM F 424-86	US
rubber	ASTM F 534-86	US
rubber	ASTM F 554-78	US
rubber	HS2 (1982)	US
rubber	SAE J667	US
rubber	SAE J866	US
rubber and plastics	BS 5173:PT103:SEC103.9	UK
rubber and plastics	BS EN ISO 6945	UK
rubber coated textiles (fabrics)	ASTM D 3389-94	US
rubber, asphalt, concrete	ASTM E 274-85	US
rubber, asphalt, concrete	ASTM E 503-82	US
rubber, vulcanised	AS 1683.21	As
seal materials	ASTM STP 1167	US
shoe materials	ASTM F 489-96	US
sports surfaces	BS 7044:PT2:SEC2.3	UK
steel, metals or alloys	ASTM STP 946	US
steel, metals or alloys	ASTM STP 946	US
steel, metals or alloys	ASTM STP 946	US
stone	ASTM C 241-90	US
stone, slag	AASHO T3	US
textiles	AATCC 119	US
textiles	AATCC 120	US
textiles	AATCC 93	US
textiles	AS 2001.2.28	As
textiles	ASTM D 3181-95, G	US

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Material(s)	Code for Standard	Country
textiles	ASTM F 153-83	US
textiles	ASTM F 92-84	US
textiles	SAE J114	US
textiles	SAE J1530	US
textiles	SAE J339	US
textiles	SAE J948	US
textiles (fabrics)	ASTM D 3884-92	US
textiles (fabrics)	ASTM D 3885-92	US
textiles (fabrics)	ASTM D 3886-92	US
textiles (fabrics)	ASTM D 4157-92	US
textiles (fabrics)	ASTM D 4158-92	US
textiles, fabrics	BS 5690	UK
textiles, fabrics	BS EN 530	UK
textiles, fabrics	DIN 53863 PT1	G
textiles, fabrics	DIN 53863 PT2	G
textiles, fabrics	DIN 53863 PT4	G
textiles, fabrics	DIN EN 530	G
textiles, fabrics	EN 530	I
textiles, metals or alloys	ASTM D 3108-95	US
textiles, metals or alloys	ASTM G 56-82 (1995)	US
textiles, plastics, rubber	SAE J365	US
textiles, rubber coating	DIN 53528	G
textiles, yarn	ASTM D 3412-94	US
thermal insulation	ASTM C 421-88	US
vitreous enamel coatings	AS 2219:PT2.3	As
vitreous enamel coatings	BS 1344:PT4	UK
wax coatings on paper	ASTM D 3234-88 (Reapproved 1993)	US
wax, coatings	ASTM D 2534-88 (Reapproved 1993)	US
wax, coatings	TAPPI 685-DM	US
waxed coatings	TAPPI T664SU	US
window materials, coatings	ASTM G 73-93, P	US
wood	AS 4266.20	As
wood	JIS-Z2141	J
wood	JIS-Z2141	J
wood flooring	MFMA 1 (1982)	US

Wear Type	Code for Standard	Country
abrasion	156 (1978)	US
abrasion	92/54597/DC, Draft	UK
abrasion	93/104822 DC, Draft	UK
abrasion	94/108070 DC, Draft	UK
abrasion	95/120402 DC, Draft	UK
abrasion	95/120403 DC, Draft	UK
abrasion	95/124796 DC, Draft	UK
abrasion	96/122202 DC, Draft	UK
abrasion	97/700653 DC, Draft	UK
abrasion	AASHO T3	US
abrasion	AASHO T4	US
abrasion	AATCC 119	US
abrasion	AATCC 120	US
abrasion	AATCC 93	US
abrasion	ANSI B74.8	US
abrasion	ANSI PH4.35	US
abrasion	AS 1683.21	As
abrasion	AS 2001.2.28	As
abrasion	AS 2039:PT5.1	As
abrasion	AS 2039:PT5.2	As
abrasion	AS 2219:PT2.3	As
abrasion	AS 4143.5	As
abrasion	AS 4143.6	As
abrasion	AS 4266.20	As
abrasion	AS1774.23	As
abrasion	ASTM B 611-85 (1991)	US
abrasion	ASTM C 1243-93	US
abrasion	ASTM C 501-84 (Reapproved 1992)	US
abrasion	ASTM D 1044-94	US
abrasion	ASTM D 1242-95a	US
abrasion	ASTM D 1395-74 (Discontinued 1989)	US
abrasion	ASTM D 1630-94	US
abrasion	ASTM D 2228-88	US
abrasion	ASTM D 3234-88 (Reapproved 1993)	US
abrasion	ASTM D 3389-94	US
abrasion	ASTM D 3730-94, G	US
abrasion	ASTM D 3884-92	US
abrasion	ASTM D 3885-92	US
abrasion	ASTM D 3886-92	US
abrasion	ASTM D 4060-95	US
abrasion	ASTM D 4157-92	US
abrasion	ASTM D 4158-92	US
abrasion	ASTM D 4173-82, P	US
abrasion	ASTM D 4213-95	US
abrasion	ASTM D 4259-83	US

Wear Type	Code for Standard	Country
abrasion	ASTM D 4886-88 (Reapproved 1995)	US
abrasion	ASTM D 5181-91	US
abrasion	ASTM D 5264-92	US
abrasion	ASTM D 5416-95	US
abrasion	ASTM F 1128-88	US
abrasion	ASTM F 1319-94	US
abrasion	ASTM F 1571-95	US
abrasion	ASTM F 510-93	US
abrasion	ASTM F 735-94	US
abrasion	ASTM G 105-89	US
abrasion	ASTM G 132-95	US
abrasion	ASTM G 65-94	US
abrasion	ASTM G 81-83 (1989), P	US
abrasion	ASTM STP 1167	US
abrasion	ASTM STP 1199	US
abrasion	ASTM STP 1199	US
abrasion	ASTM STP 946	US
abrasion	ASTM STP 946	US
abrasion	ASTM STP 946	US
abrasion	ASTM STP 946	US
abrasion	ASTM STP 946	US
abrasion	ASTM STP 946	US
abrasion	ASTM STP 946	US
abrasion	ASTM STP 946	US
abrasion	ASTM STP 946	US
abrasion	ASTM STP 946	US
abrasion	BS 1016:PT111	UK
abrasion	BS 1344:PT4	UK
abrasion	BS 3900:PTE14(1997)	UK
abrasion	BS 3900:PTE15(1997)	UK
abrasion	BS 5131:PT3:SEC3.6	UK
abrasion	BS 5173:PT103:SEC103.9	UK
abrasion	BS 5690	UK
abrasion	BS 6161:PT9(1987)	UK
abrasion	BS 6212	UK
abrasion	BS 6431:PT14	UK
abrasion	BS 6431:PT20	UK
abrasion	BS 7044:PT2:SEC2.3	UK
abrasion	BS AU148:PT4	UK
abrasion	BS EN 295 PT3	UK
abrasion	BS EN 530	UK
abrasion	BS EN 60068 PT2-70	UK
abrasion	BS EN ISO 6945	UK
abrasion	BS ISO 3271	UK
abrasion	DA 20.0	US
abrasion	DIN 14811 (PT3)	G

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Wear Type	Code for Standard	Country
abrasion	DIN 51152	G
abrasion	DIN 52108	G
abrasion	DIN 52347	G
abrasion	DIN 52348	G
abrasion	DIN 53109	G
abrasion	DIN 53516	G
abrasion	DIN 53528	G
abrasion	DIN 53754	G
abrasion	DIN 53863 PT1	G
abrasion	DIN 53863 PT2	G
abrasion	DIN 53863 PT4	G
abrasion	DIN EN 530	G
abrasion	DIN EN 60068 PT2-70	G
abrasion	DIN ISO 6370 PT1	G
abrasion	DIN ISO 6370 PT2	G
abrasion	EN 102	I
abrasion	EN 1097 PT1	I
abrasion	EN 154	I
abrasion	EN 530	I
abrasion	EN 60068 PT2-70	I
abrasion	HS2 (1982)	US
abrasion	IEC 68 PT2-70	I
abrasion	ISO 3537-	I
abrasion	ISO 4649-	I
abrasion	ISO 6370/1-	I
abrasion	ISO 8251 -	I
abrasion	ISO 8252	I
abrasion	ISO 9352 -	I
abrasion	JIS-A1120	J
abrasion	JIS-A1121	J
abrasion	JIS-A1452	J
abrasion	JIS-H8682	J
abrasion	JIS-K6894	J
abrasion	JIS-K7204	J
abrasion	JIS-Z2141	J
abrasion	NACE TM 03 75	US
abrasion	NFB 10-508	F
abrasion	NFD 14-501	F
abrasion	NFL 52-250-53	F
abrasion	NFP 18-572	F
abrasion	NFT 30-015	F
abrasion	PIN-TEST.CETIM (1984)	F
abrasion	PN-81/H-04328 (1981)	P
abrasion	PREN 3475-503	F
abrasion	SAE AMS 3510	US

Wear Type	Code for Standard	Country
abrasion	SAE ARP 1536	US
abrasion	SAE ARP 1536A	US
abrasion	SAE J114	US
abrasion	SAE J1530	US
abrasion	SAE J1847	US
abrasion	SAE J339	US
abrasion	SAE J965	US
abrasion	SS 22 72 10	S
abrasion	T-2	US
abrasion	TAPPI 476	US
abrasion	TAPPI 685-DM	US
abrasion	TAPPI T476TS	US
abrasion	TAPPI UM-603	US
abrasion	TM-01-70	US
abrasion, attrition	ASTM D 4058-92	US
abrasion, erosion	ASTM STP 946	US
abrasion, erosion	ASTM STP 946	US
abrasion, erosion	TM-03-75	US
abrasion, galling, seizure, scuffing	SAE J948	US
abrasion, impact	ASTM C 1027-84 (reapproved 1990)	US
abrasion, impact	ASTM C 241-90	US
abrasion, impact	ASTM C 421-88	US
abrasion, impact	ASTM C 448-88 (Reapproved 1994)	US
abrasion, impact	ASTM C 944-90a	US
abrasion, impact	ASTM D 4644-97 (Reapproved 1992)	US
abrasion, impact	ASTM E 279-92	US
abrasion, impact	ASTM G 6-88, (1992)	US
abrasion, impact	JIS-A1451	J
abrasion, impact wear. solid particle erosion	DIN 50313	G
abrasion, impact, attrition, grinding	ASTM C 131-89	US
abrasion, impact, attrition, grinding	ASTM C 535-89	US
abrasion, impact, sliding wear	ASTM C 779-89a	US
abrasion, liquid erosion	ASTM C 1138-89	US
abrasion, solid erosion	ASTM C 418-90	US
abrasion, solid erosion	ASTM C 704-94	US
abrasion, solid erosion	ASTM D 658-91	US
abrasion, solid erosion	ASTM D 821(Discontinued 1984)	US
abrasion, solid erosion	ASTM D 968-93	US
all types of wear	ASTM G 119-93, G	US
all types of wear	DIN 50322	G
all types of wear and erosion	ASTM G 117-93, G	US
all types of wear and erosion	ASTM G 40-95	US
atlas of various wear types	DIN 3979	G
cavitation	ASTM G 134-95	US
cavitation	ASTM G 32-92	US

Wear Type	Code for Standard	Country
cavitation erosion	ASTM D 2809-94	US
cavitation, liquid erosion	ASTM D 2966 (Discontinued 1983)	US
erosion	ASTM D 913-88 (Reapproved 1993)	US
fretting	ASTM D 4170-87	US
fretting	ASTM F 897-84, P	US
fretting	ASTM STP 1167	US
fretting	JIS-P8147	J
fretting	JIS-Z2141	J
galling	ASTM G 98-91	US
galling, seizure, scuffing	ASTM D 2509-93	US
galling, seizure, scuffing	SAE J365	US
impact wear	ASTM D 1709-91	US
impact wear	ASTM F 153-83	US
impact wear	ASTM F 92-84	US
impact wear, abrasion	ASTM D 3402-93	US
impact wear, liquid erosion, solid erosion	ASTM D 662-93	US
liquid erosion	ACI 52-18	US
liquid erosion	ASTM G 73-93, P	US
liquid erosion	SAE AMS 3138/1	US
liquid erosion	SAE AMS 3138/3	US
rolling contact	DIN 51806 PT2	G
rolling contact	SAE J1499	US
rolling contact, abrasion	JIS-A1453	J
scuffing	JIS-L0849	J
scuffing/scoring	IP166	UK
seizure, welding	IP239	UK
sliding or rolling contact	108	US
sliding or rolling contact	AASHO M261 (1987)	US
sliding or rolling contact	AASHO M286 (1981)	US
sliding or rolling contact	AASHO T242 (1980)	US
sliding or rolling contact	AGMA 110.03	US
sliding or rolling contact	ASTM D 1947-93	US
sliding or rolling contact	ASTM D 3336-91	US
sliding or rolling contact	ASTM D 3527-95	US
sliding or rolling contact	ASTM D 4172-94	US
sliding or rolling contact	ASTM D 5183-95	US
sliding or rolling contact	ASTM F 1016-86, P	US
sliding or rolling contact	ASTM F 1046-87, G	US
sliding or rolling contact	ASTM F 534-86	US
sliding or rolling contact	ASTM F 554-78	US
sliding or rolling contact	DIN 31652	G
sliding or rolling contact	DIN 31653	G
sliding or rolling contact	DIN 31654	G
sliding or rolling contact	DIN 50281	G
sliding or rolling contact	DIN 50282	G

Wear Type	Code for Standard	Country
sliding or rolling contact	DIN 51354 PT1	G
sliding or rolling contact	DIN 51354 PT2	G
sliding or rolling contact	DIN 51354 PT3	G
sliding or rolling contact	DIN 51509 PT1	G
sliding or rolling contact	DIN 51509 PT2	G
sliding or rolling contact	IP 334	UK
sliding or rolling contact	JIS-K2519	J
sliding or rolling contact	MSRPB 116	US
sliding wear	94/304241 DC, Draft	UK
sliding wear	94/307255 DC, Draft	UK
sliding wear	95/105502, Draft	UK
sliding wear	ANSI X3.112 (1984)	US
sliding wear	AS 3696.13	As
sliding wear	ASAE D242.1	US
sliding wear	ASAE D242.1a	US
sliding wear	ASTM B 460 (Discontinued 1992)	US
sliding wear	ASTM B 461 (Discontinued 1992)	US
sliding wear	ASTM B 526 (Discontinued 1992)	US
sliding wear	ASTM B 794-93	US
sliding wear	ASTM D 1367-90	US
sliding wear	ASTM D 1553-83 (Discontinued 1995))	US
sliding wear	ASTM D 1894-95	US
sliding wear	ASTM D 2047-93	US
sliding wear	ASTM D 2266-91	US
sliding wear	ASTM D 2271-94	US
sliding wear	ASTM D 2534-88 (Reapproved 1993)	US
sliding wear	ASTM D 2596-93	US
sliding wear	ASTM D 2625-94	US
sliding wear	ASTM D 2670-94	US
sliding wear	ASTM D 2714-94	US
sliding wear	ASTM D 2716 (Discontinued 1982)	US
sliding wear	ASTM D 2782-94	US
sliding wear	ASTM D 2783-88 (Reapproved 1993)	US
sliding wear	ASTM D 2882-90	US
sliding wear	ASTM D 2981-94	US
sliding wear	ASTM D 3028-93	US
sliding wear	ASTM D 3108-95	US
sliding wear	ASTM D 3181-95, G	US
sliding wear	ASTM D 3233-93	US
sliding wear	ASTM D 3247-84 (Discontinued 1988)	US
sliding wear	ASTM D 3248-84 (Discontinued 1988)	US
sliding wear	ASTM D 3412-94	US
sliding wear	ASTM D 3428-86 (Discontinued 1990)	US
sliding wear	ASTM D 3702-94	US
sliding wear	ASTM D 3704-90	US

Wear Type	Code for Standard	Country
sliding wear	ASTM D 4103-82, P	US
sliding wear	ASTM D 4518-91	US
sliding wear	ASTM D 4521-91	US
sliding wear	ASTM D 4863-88	US
sliding wear	ASTM E 274-85	US
sliding wear	ASTM E 303	US
sliding wear	ASTM E 405-89	US
sliding wear	ASTM E 503-82	US
sliding wear	ASTM E 510, P	US
sliding wear	ASTM E 670-87	US
sliding wear	ASTM E 707-84	US
sliding wear	ASTM F 376-79	US
sliding wear	ASTM F 377-86	US
sliding wear	ASTM F 410-82	US
sliding wear	ASTM F 489-96	US
sliding wear	ASTM F 732-82 (Reapproved 1991), P	US
sliding wear	ASTM G 118-95, G	US
sliding wear	ASTM G 133-95	US
sliding wear	ASTM G 137-95	US
sliding wear	ASTM G 56-82 (1995)	US
sliding wear	ASTM G 77-93	US
sliding wear	ASTM G 83-90	US
sliding wear	ASTM G 99-95a	US
sliding wear	ASTM STP 1010	US
sliding wear	ASTM STP 1010	US
sliding wear	ASTM STP 1010	US
sliding wear	ASTM STP 1010	US
sliding wear	ASTM STP 1167	US
sliding wear	ASTM STP 1167	US
sliding wear	ASTM STP 1167	US
sliding wear	ASTM STP 1167	US
sliding wear	ASTM STP 1167	US
sliding wear	ASTM STP 1167	US
sliding wear	ASTM STP 1167	US
sliding wear	ASTM STP 1199	US
sliding wear	ASTM STP 1199	US
sliding wear	BS 5961	UK
sliding wear	BS2782:PT8:MTD824A	UK
sliding wear	BUL 211.1	US
sliding wear	CSA Z323.4.9	C
sliding wear	DIN 31680	G
sliding wear	DIN 50280	G
sliding wear	DIN 50324	G
sliding wear	DIN 51350 PT1	G
sliding wear	DIN 51350 PT3	G
sliding wear	DIN 51350 PT5	G

Wear Type	Code for Standard	Country
sliding wear	DIN 51350 PT6	G
sliding wear	DIN 51389 PT1	G
sliding wear	DIN 51389 PT2	G
sliding wear	DIN 51389 PT3	G
sliding wear	DIN 53375	G
sliding wear	EC01-EC03-EC05 (1992)	F
sliding wear	EC02-EC04 (1992) G	F
sliding wear	IEC 648	I
sliding wear	IP 281	UK
sliding wear	IPP 110.3	US
sliding wear	ISO 6601-	I
sliding wear	ISO 7176/13-	I
sliding wear	ISO 8295-	I
sliding wear	ISO TR 6281-	I
sliding wear	JIS-K7125	J
sliding wear	JIS-K7218	J
sliding wear	MSRPB 97	US
sliding wear	MSRPE 30	US
sliding wear	MSRPE 36	US
sliding wear	NEMA MW 750	US
sliding wear	NEN ISO 6601	N
sliding wear	NEN NPR 10648	N
sliding wear	NFC 26-251	F
sliding wear	NFT 51-108	F
sliding wear	NFT 51-110	F
sliding wear	NFT 54-112	F
sliding wear	Not numbered, G	F
sliding wear	Not numbered, G	F
sliding wear	Not numbered, G	F
sliding wear	Not numbered, G	F
sliding wear	Not numbered, G	F
sliding wear	PN-70/M-04307 (1970)	P
sliding wear	PN-79/H-04329 (1979)	P
sliding wear	PN-82/H-04332 (1982)	P
sliding wear	SAE AMS 2525	US
sliding wear	SAE AMS 2526A	US
sliding wear	SAE ARP 1200	US
sliding wear	SAE ARP 1797	US
sliding wear	SAE J 1335	US
sliding wear	SAE J1846	US
sliding wear	SAE J667	US
sliding wear	SAE J866	US
sliding wear	SMPTE RP48 (1985)	US
sliding wear	TAPPI T503SU	US
sliding wear	TAPPI T664SU	US

Wear Type	Code for Standard	Country
sliding wear	TAPPI T816SU	US
sliding wear	TAPPI UM-462 (1978)	US
sliding wear	TBV.CETIM, G	F
sliding wear	TGV-CETIM (1989), G	F
sliding wear, abrasion, rolling contact	ASTM C 808-75 (Reapproved 1995), G	US
sliding wear, abrasive wear	DIN 15436	G
sliding wear, friction test	ASTM C 1028-89	US
sliding wear, galling, seizure, scuffing	DIN 51350 PT2	G
sliding wear, impact wear	MSRPB 53	US
sliding wear, impact wear	MSRPB 54	US
sliding wear, impact wear, abrasion	MFMA 1 (1982)	US
sliding wear, rolling contact	ASTM F 403-86	US
sliding wear, rolling contact	ASTM F 408-86	US
sliding wear, rolling contact	ASTM F 424-86	US
sliding wear, rolling fatigue	ASTM STP 1167	US
sliding wear; galling, seizure, scuffing	SAE J286	US
sliding, galling, seizure, scuffing test	DIN 51350 PT4	G
slurry erosion	ASTM G 75-95	US
slurry erosion	ASTM STP 1199	US
solid erosion	35	US
solid erosion	ASTM D 2132-89	US
solid erosion	ASTM G 76-95	US
solid erosion	DIN 50332	G
solid erosion, abrasion	JIS-K7205	J
solid erosion, impact wear	ASTM D 2303-95	US
various wear types	DIN 50321, G	G
various wear types	DIN 50323 PT1	G
various wear types	DIN 50323 PT2	G
various wear types	DIN 50323 PT3	G
various wear types	DIN 50323 PT4	G
wear atlas	DIN 31661	G

Test Method(s)	Code for Standard	Country
abrasion by swirling water containing solid objects	ASTM C 1138-89	US
abrasive disc	DIN 53754	G
abrasive jet	AS 2039:PT5.1	As
abrasive jet	ASTM C 418-90	US
abrasive jet	ASTM C 704-94	US
abrasive jet	ASTM D 658-91	US
abrasive jet	ASTM F 1128-88	US
abrasive jet	ASTM G 76-95	US
abrasive jet	ISO 8252	I
abrasive paper	92/54597/DC, Draft	UK
abrasive paper	AATCC 120	US
abrasive paper	ASTM D 1630-94	US
abrasive paper	ASTM D 4886-88 (Reapproved 1995)	US
abrasive paper	BS 3900:PTE14(1997)	UK
abrasive scrubbing	ASTM D 4213-95	US
abrasive wheel	ASTM D 3730-94, G	US
abrasive wheel	ASTM F 510-93	US
abrasive wheel	BS 6161:PT9(1987)	UK
abrasive wheel	DIN 52108	G
abrasive wheel	DIN 52347	G
abrasive wheel	ISO 3537-	I
abrasive wheel	ISO 8251 -	I
abrasive wheel, Taber Abrasion Test	AS 4266.20	As
abrasive wheel, Taber Abrasion Test	ASTM C 501-84 (Reapproved 1992)	US
abrasive wheel, Taber Abrasion Test	ASTM D 1044-94	US
abrasive wheel, Taber Abrasion Test	ASTM D 4060-95	US
abrasive wheel, Taber Abrasion Test	ISO 9352 -	I
abrasive wheels, metal blades	BS 7044:PT2:SEC2.3	UK
all tests for sliding wear	ASTM G 118-95, G	US
Amsler machine	PN-79/H-04329 (1979)	P
Amsler machine	PN-82/H-04332 (1982)	P
Amsler machine	PN-88/H-04337 (1988)	P
ball against cylinder wrapped in printer ribbon	ASTM G 56-82 (1995)	US
ball-on-disc	DIN 50324	G
ball-on-flat, reciprocating	ASTM G 133-95	US
ball-on-three-flat	ASTM STP 1010	US
block-on-ring	ASTM D 2981-94	US
block-on-ring	ASTM G 137-95	US
block-on-ring	ASTM G 77-93	US
block-on-ring (falex)	ASTM D 3704-90	US
brake lining requirements	DIN 15436	G
calculating and reporting	ASTM G 117-93, G	US
cavitating jet on submerged specimen	ASTM G 134-95	US
coated surface pulled over a second coated surface	ASTM D 2534-88 (Reapproved 1993)	US
coating specification	SAE AMS 3510	US
component test	ASTM B 794-93	US

Test Method(s)	Code for Standard	Country
component test	ASTM D 2809-94	US
component test	ASTM E 405-89	US
component test, revolving drum	ASTM G 6-88, (1992)	US
computer ribbon test	ASTM F 153-83	US
cross-cylinder, perpendicular cylinders, one rotating	ASTM G 83-90	US
cup rotating against block, Timken test	ASTM D 2509-93	US
cup rotating against block, Timken test	ASTM D 2782-94	US
cylindrical flat-on-flat geometry, rotating	ASTM G 98-91	US
definitions	DIN 50281	G
definitions	DIN 50282	G
definitions	DIN 50320	G
definitions	DIN 50321, G	G
definitions	NFT 51-108	F
definitions of scales of testing	DIN 50322	G
Deval machine	AASHTO T3	US
Deval machine	AASHTO T4	US
Deval machine	JIS-A1120	J
drum friction testing	94/307255 DC, Draft	UK
dry or wet sand / rubber wheel, pin-on-disc abrasion	ASTM STP 1199	US
dry sand/ rubber wheel	ASTM G 65-94	US
failex block-on-ring friction and wear tester	ASTM D 2714-94	US
Falex machine	PN-75/M-04308 (1975)	P
failex pin and vee block	ASTM D 2625-94	US
failex pin and vee block	ASTM D 2670-94	US
failex pin and vee block	ASTM D 3233-93	US
falling abrasive	ASTM D 968-93	US
falling sand	ASTM D 3234-88 (Reapproved 1993)	US
falling sand	DIN 52348	G
falling sand	JIS-A1452	J
falling sand	NACE TM 03 75	US
falling sand	TM-03-75	US
flat against end of rotating disc, abrasive fed in	ASTM C 1243-93	US
flat-on-flat	NFT 51-110	F
flat-on-flat, rotating	ASTM C 241-90	US
floor traction test, James machine	ASTM D 2047-93	US
folding and rubbing	ASTM D 3885-92	US
four-ball test	ASTM D 2266-91	US
four-ball test	ASTM D 2596-93	US
four-ball test	ASTM D 2783-88 (Reapproved 1993)	US
four-ball test	ASTM D 4172-94	US
four-ball test	ASTM D 5183-95	US
four-ball test	DIN 51350 PT1	G
four-ball test	DIN 51350 PT2	G
four-ball test	DIN 51350 PT3	G
four-ball test	DIN 51350 PT4	G
four-ball test	DIN 51350 PT5	G

Test Method(s)	Code for Standard	Country
four-ball test	DIN 51350 PT6	G
four-ball test	IP239	UK
fretting test	ASTM STP 1167	US
friction clutches test	ASTM D 4736-87	US
friction tests	ASTM G 115-93, G	US
friction torque test	MIL-STD-206	US
FZG gear rig test	DIN 51354 PT1	G
FZG gear rig test	DIN 51354 PT2	G
FZG gear rig test	DIN 51354 PT3	G
FZG gear rig test	IP 334	UK
gear testing rig	IP166	UK
general product test	ACI 52-18	US
general laboratory test for sliding wear	EC01-EC03-EC05 (1992)	F
general review	SAE J965	US
grinding/polishing	ANSI B74.8	US
guidelines	ISO TR 6281-	I
hardware specification	SAE ARP 1200	US
hardware test	108	US
hardware test	MSRPB 116	US
hardware test	MSRPB 53	US
hardware test	MSRPB 54	US
hardware test	MSRPB 97	US
hardware test	MSRPE 36	US
hardware test	SAE ARP 1536A	US
highway paving test	ASTM E 503-82	US
highway paving test	ASTM E 670-87	US
highway paving test	ASTM E 707-84	US
hip joint simulator	BS 7251:PT7(1990)	UK
hip joint simulator	BS 7251:PT8(1990)	UK
hip joint simulator	ISO 9326-	I
horizontal dynamometer pull-meter	ASTM C 1028-89	US
hubble test	ASTM STP 946	US
impact tests	ASTM D 1709-91	US
in service evaluation	ASTM D 662-93	US
in service evaluation	ASTM D 913-88 (Reapproved 1993)	US
inclined plane, horizontal pull	ASTM D 4518-91	US
inclined plane, horizontal pull	ASTM D 4521-91	US
James machine	BUL 211.1	US
James machine, sliding on walking surface	ASTM F 489-96	US
jaw crusher gouging abrasion	ASTM G 81-83 (1989), P	US
jet erosion	ASTM STP 946	US
jet erosion, vibratory	ASTM STP 946	US
linear slide	ASTM STP 1199	US
liquid impingement	ASTM G 73-93, P	US
loaded block reciprocating in tray containing slurry	ASTM G 75-95	US
loose abrasive, abrasive cloth	ASTM D 1242-95a	US

Test Method(s)	Code for Standard	Country
lubricant efficiency test	ASTM D 1367-90	US
lubricant efficiency test	Not numbered, G	F
lubricant efficiency test	Not numbered, G	F
Martindale abrasion test	DIN 53863 PT4	G
metal disc	NFB 10-508	F
micro deval wear test	93/104822 DC, Draft	UK
micro deval wear test	EN 1097 PT1	I
micro deval wear test	NFP 18-572	F
Miller abrasion test	ASTM STP 1199	US
Miller abrasion test	ASTM STP 946	US
millier abrasion test	ASTM STP 946	US
Nordic test, studded tyres	94/108070 DC, Draft	UK
oscillating specimens, alloy balls, abrasive & water	ASTM C 1027-84 (reapproved 1990)	US
oscillating specimens, alloy balls, abrasive & water	ASTM C 448-88 (Reapproved 1994)	US
pavement testing	AASHO M286 (1981)	US
pendulum friction test	AS 1141:PT42	As
pendulum friction test	ASTM D 3028-93	US
Pico tester, WC knives against rotating specimen	ASTM D 2228-88	US
pin-on-disc	ASTM G 99-95a	US
pin-on-disc	ASTM STP 1010	US
pin-on-disc	ASTM STP 1010	US
pin-on-disc	ASTM STP 1167	US
pin-on-disc	ASTM STP 1167	US
pin-on-disc	ASTM STP 1167	US
pin-on-disc, pin-on-drum, pin-on-table, pin-on-belt	ASTM G 132-95	US
pin-on-disc, rolling contact fatigue	ASTM STP 1167	US
pin-on-flat, reciprocating	ASTM F 732-82 (Reapproved 1991), P	US
pressure vane pump test	ASTM D 2271-94	US
principles	DIN 53863 PT1	G
product test	156 (1978)	US
reciprocating	95/120403 DC, Draft	UK
reciprocating	ASTM STP 1199	US
reciprocating, pin-on-disc, thrust washer	ASTM STP 1167	US
recommendation for the use of oils	DIN 51509 PT1	G
recommendation for the use of oils	DIN 51509 PT2	G
revolving discs; dressing wheels; ball bearings	ASTM C 779-89a	US
revolving platform, double-head (RPDH) abrader	AS 2001.2.28	As
revolving platform, double-head (RPDH) abrader	ASTM D 3389-94	US
revolving platform, double-head (RPDH) abrader	ASTM D 3884-92	US
rod on flat	ASTM STP 1010	US
rotary abrasion test	DIN 53863 PT2	G
rotating abrasive load	BS 6431:PT20	UK
rotating abrasive load	EN 154	I
rotating cylindrical device	AS 1683.21	As
rotating disc fitted friction and impact	JIS-A1451	J
rotating disc with abrasive material	BS 6431:PT14	UK

Test Method(s)	Code for Standard	Country
rotating disc with abrasive material	EN 102	I
rotating drum	96/122202 DC, Draft	UK
rotating drum	ASTM C 131-89	US
rotating drum	ASTM C 421-88	US
rotating drum	ASTM C 535-89	US
rotating drum	ASTM D 3402-93	US
rotating drum	ASTM D 4058-92	US
rotating drum	ASTM D 4644-97 (Reapproved 1992)	US
rotating drum	ASTM E 279-92	US
rotating drum	BS 6212	UK
rotating drum	BS ISO 3271	UK
rotating drum	DIN 53516	G
rotating drum	ISO 4649-	I
rotating drum	JIS-A1121	J
rotating rubber wheel	95/120402 DC, Draft	UK
rotating-cutter, dressing wheels	ASTM C 944-90a	US
rubber wheel	BS 3900:PTE15(1997)	UK
rubbing	ASTM D 4157-92	US
rubbing	ASTM D 5264-92	US
rubbing	ASTM D 5416-95	US
rubbing	ASTM F 1319-94	US
rubbing	ASTM F 1571-95	US
rubbing, inflated diaphragm	ASTM D 3886-92	US
rubbing, sliding of test print and receptor	ASTM D 5181-91	US
rules for calculation	DIN 31652	G
rules for calculation	DIN 31653	G
rules for calculation	DIN 31654	G
scrape	NFL 52-250-53	F
scrape	PREN 3475-503	F
scratch testing	NFT 30-015	F
screen wire method	AATCC 119	US
scuffing test	JIS-L0849	J
service conditions	ASTM D 3181-95, G	US
sheet metal forming	ASTM D 4173-82, P	US
Skoda-Savine machine	PN-67/M-04306 (1967)	P
sliding block test	95/124796 DC, Draft	UK
sliding sled	ASTM D 1894-95	US
SLPG tester	DIN 1496	G
slurry bed test	ASTM STP 946	US
slurry erosion test	ASTM STP 1167	US
slurry erosion test	ASTM STP 1199	US
slurry test (impeller)	ASTM STP 946	US
slurry-pot erosion	ASTM STP 946	US
slurry-pot erosion	ASTM STP 946	US
small sample bench test	ISO 7881-	I
small sample bench test	UNI ISO 7881	It

Test Method(s)	Code for Standard	Country
steel wheel/ abrasive slurry	ASTM B 611-85 (1991)	US
Taber abrader	TAPPI UM-462 (1978)	US
terminology	AGMA 110.03	US
terminology	ASTM G 40-95	US
terms and definitions	DIN 31661	G
terms and definitions	DIN 50323 PT1	G
terms and definitions	DIN 50323 PT2	G
terms and definitions	DIN 50323 PT3	G
terms and definitions	DIN 50323 PT4	G
three-rollers-cone	PN-83/H-04302 (1983)	P
thrust washer	ASTM D 3702-94	US
thrust washer, pin-on-disc	ASTM STP 1167	US
thrust wear tester	ASTM STP 1167	US
tribochemical reactions in sliding wear	Not numbered, G	F
typewriter ribbon test	ASTM F 92-84	US
tyre testing	AASHO M261 (1987)	US
uniform abrasion	ASTM D 4158-92	US
vane pump test	ASTM D 2882-90	US
vane pump test	DIN 51389 PT1	G
vane pump test	DIN 51389 PT2	G
vane pump test	DIN 51389 PT3	G
vane pump test	IP 281	UK
vibrating specimen immersed in liquid	ASTM G 32-92	US
vibrating tray	ASTM F 735-94	US
wet and dry testing	BS 5131:PT3:SEC3.6	UK
wet sand/ rubber wheel test	ASTM G 105-89	US
wet sand/ rubber wheel test	ASTM STP 946	US
wet sand/ rubber wheel, jet erosion	ASTM STP 946	US
yarn friction measuring apparatus	ASTM D 3108-95	US
yarn-to-yarn friction apparatus	ASTM D 3412-94	US

