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Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47

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Саранск (8342)22-96-24
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Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
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Тверь (4822)63-31-35

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Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
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Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

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elcometer®
inspection equipment



Elcometer 1720
Washability & Abrasion Testers

Elcometer 1720

Washability & Abrasion Testers

STANDARDS:
AS/NZS 1580.459.1, ASTM D 2486,
ASTM D 3450, ASTM D 4213,
ASTM D 4488, ASTM D 4828,
ASTM F 1319, DIN 53778-2:1983,
ECCA T11, EN 13523-11,
EN 233/C3.2-A, EN 233/C3.2-B,
EN 233/C3.2-C, EN 60730-1-A,
GME 60269, ISO 105-X12,
ISO 11998, JIS K 5600-5-11,
PSA D45 1010, ASTM D1792 - 06
ASTM D2198 -02, ASTM D3206 - 08,
ASTM D6279 - 03(2007), MIL-C-3004,
MIL-C-46057, MIL-E-11237,
MIL-STD-1334B, MIL-P-15422C,
FTMS 141, Method 6141,
FTMS 141, Method 6142,
FTMS Method 536/6701,
Federal Specification P-D-220D,
P-R-1760, P-W-155C, TT-P-26C(1),
TT-P-29K, TT-P-30E(1), TT-P-47G,
TT-E-505B, TT-E-506K(1),
TT-E-509C, TT-C-535B(2),
TT-C-555B(1)

These robust, reliable and extremely versatile machines have been designed for testing the washability, brushability and resistance of a wide range of materials including paint, lacquers, inks, coatings, leather, wood, plastics, printed material, fabrics etc.

Test up to 4 samples simultaneously

User adjustable stroke length from 10 to 300mm (0.4 to 11.8")

Rapid tool change

All stations can be tested wet or dry

The durable and robust design is stable under test allowing repeatable results, even at the fastest stroke speeds

Multi-lingual digital display

Available with or without an integrated liquid dosing pump

Speed Cycles can be adjusted from 10 to 65 cycles per minute or set to the ISO Standard of 37 cycles/min



Wide range of tools available, for testing flat and curved samples (see page 5)



Washability & Abrasion Testers

Elcometer 1720



Meeting Standards

- With the wide range of tools available many Standards can be tested in one unit
- All units can be used in accordance with ASTM, DIN, EN and ISO Standards
- Easily adjustable to customers unique applications using the special tools
- Washability and abrasion testing on flat and curved samples up to 13mm (0.51") thick

Washability & Abrasion



Interchangeable Tools

- All tools are interchangeable with the rapid tool change system, making the unit ideal for use in accordance with a wide range of Standards

For the complete range of tools, see page 19-5



User Adjustable

- Stroke length can be quickly and easily changed by the user to meet their specific requirements between 10 - 300mm (0.4 - 11.8")
- Speed of carriage can be adjusted between 10 and 65 cycles per minute
- Cycle counter can be pre-set for a defined number of cycles from 1 - 32,760



Wet and Dry

- All stations can be tested wet or dry
- Versions are available with or without an internal liquid pump
- Samples can be tested under wet or dry conditions



Economic

- With the ability to test up to 4 different characteristics simultaneously, significant time can be saved
- With its rapid tool change system setting up tests is fast and easy
- Easy sample placement allows quick change between tests

Elcometer 1720

Washability & Abrasion Testers



Test up to 4 different samples simultaneously.



Stroke speed can be varied between 10 and 65 cycles/min or set to 37 cycles/min to meet ISO Standards.



Stroke length can be adjusted by the user to meet specific requirements, from 10 to 300mm (0.4 to 11.8").



Available with or without liquid dosers, allowing test liquids to be regulated automatically or independently.



Digital display allows easy, accurate speed variation and simple reporting.



The rapid tool change system allows the user to test the samples in accordance with a wide range of National and International Standards on both flat and curved samples simultaneously.

Technical Specification

C

| Part Number | Description |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| K1720M204 | Elcometer 1720 Abrasion Tester, 4 Station (110 - 240V) |
| K1720M304 | Elcometer 1720 Abrasion & Washability Tester, 4 Station (110 - 240V) |
| Dimensions | 550 x 460 x 320mm (21.7 x 18.1 x 12.6") |
| Weight | 33kg (73lb) |
| Packing List | Elcometer 1720, 250µm (10mil) metal strip for ASTM D2486 Standard, sample drip tray, 2 x glass sheet, 2 x specimen holding frame, set of 3 tools for instrument set up, 3 x mains leads (UK, EUR and US) and operating instructions. Elcometer 1720 part number K1720M304 also includes a liquid dosing bottle, liquid delivery pipe and 2 liquid drain pipes. Tools are supplied separately, please order from the list on page 6. |



Scrub Test Panels are also available - see page 7 for more information

Washability & Abrasion Testers

Elcometer 1720

The Elcometer 1720 can undertake tests according to a wide range of different Standards and Test Methods by simply changing the abrasive tools. For more information on Standards, please see section 23. Please select the required tools from the list on the following two pages. Samples can be tested in a combination of both wet and dry methods.



Tool 1: Wild Boar Brush

Wild boar hair brush and stainless steel brush holder.
Total weight: 250g (8.82oz)

Part Number: **KT001720P003**

STANDARDS:

DIN 53778-2:1983



Tool 3: Sponge

Sponge and stainless steel brush holder, 337g (11.9oz).
Total weight: 508g (17.92oz)

Part Number: **KT001720P005**

STANDARDS:

ASTM D4213:92, ASTM D4828



Tool 5: Sponge / Abrasive

Sponge & stainless steel holder
abrasive pads - top and bottom &
76g (2.7oz) mass.
Total Weight: 232g (8.12oz)

Part Number: **KT001720P029**

STANDARDS:

ASTM D4213



Tool 7: Universal Material Clamp

Stainless steel holder allowing users to fix their own test sample or abrasive material. Ideal for abrasion and wear of labels, textiles, ink etc.

Part Number: **KT001720P207**



Washability & Abrasion

Tool 2: Nylon Brush

Nylon bristle brush, stainless steel brush holder and 177g (6.2oz) mass.
Total weight: 454g (16.01oz)

Part Number: **KT001720P030**

STANDARDS:

ASTM D2486



Tool 4: Sponge

Sponge and stainless steel brush holder, 337g (11.9oz) and 250g (8.8oz) mass to bring gross weight to 750g.
Total weight: 750g (26.45oz)

Part Number: **KT001720P073**

STANDARDS:

ASTM D3450



Tool 6: Abrasive

Aluminium holder, abrasive pads (x5).
Total weight: 135g (4.76oz)

Part Number: **KT001720P036**

STANDARDS:

ISO 11998



Tool 8: Linear Abrader "Crockmeter"

This tool is ideal for testing abrasion on both curved and flat surfaces and for testing colour fastness of fabrics. Supplied with a removable stainless steel rod, test felt, textile fixing ring and a set of additional masses - 2x100g (3.5oz), 1x200g (7oz), 1x500g (17.6oz). Total weight (excluding masses): 200g (7oz)

Part Number: **KT001720P074**

STANDARDS:

ASTM F1319, ISO 105-X12, PSA D45 1010

Elcometer 1720

Washability & Abrasion Testers



Tool 9: Linear Abrader

For testing the resistance to abrasion of automotive components, includes a felt disc of 10mm (0.4") diameter and 10mm (0.4") thick working under a mass of 400g (14.1oz).

Total weight: 400g (14.11oz)

Part Number: **KT001720P075**

STANDARDS:

GME 60269



Tool 9A: Linear Abrader

As Tool 9 but with 16mm (0.63") diameter felt wool disc.

Total weight: 820g (28.9oz)

Part Number: **KT001720P075-1**



Tool 9B: Linear Abrader

Felt holder for 16mm (0.63") diameter felt wool disc working under a mass of 900g (31.7oz)

Total weight: 900g (31.74oz)

Part Number: **KT001720P075-2**

STANDARDS:

EN 13523-11, ECCA T11



Tool 10: Curved Sample Tool

Height adjustable with an elbow joint for curved samples, this tool is ideal for testing abrasion resistance of both coatings and inks. Supplied with felt disc, rod for masses, 1x50g (1.75oz), 1x100g (3.5oz), 2x200g (7oz) and 2x500g (17.5oz) mass

Part Number: **KT001720N003**

STANDARDS:

EN 60730-1-A

Accessories

| Part Number | Description |
|--------------|-------------------------------------------|
| KT001720P004 | Wild Boar Brush for Tool 1 |
| KT001720P009 | Nylon Brush for Tool 2 |
| KT001720P006 | Sponge (5) for Tools 3 & 4 |
| KT001720P141 | Sponge/Abrasive (5) for Tool 5 |
| KT001720P037 | Abrasive Pads (10) for Tool 6 |
| KT001720P064 | Abrasive Pads (100) for Tool 6 |
| KT001720P051 | Abrasive G 120 Sheets (4) for Tools 1 & 2 |
| KT001720P008 | 25m Abrasive Roll for Tool 7 |
| KT001720P062 | Felt Disks (2) for Tool 10 |
| KT001720N009 | Non-Abrasive Scrub Medium - SC1 |
| KT001720N002 | Abrasive Scrub Medium - SC2 |
| KT001720P016 | 50g Mass (To fit tools 1 - 8, 10) |
| KT001720P017 | 100g Mass (To fit tools 1 - 8, 10) |
| KT001720P018 | 200g Mass (To fit tools 1 - 8, 10) |
| KT001720P031 | 227g Mass (To fit tools 1 - 8, 10) |
| KT001720P019 | 500g Mass (To fit tools 1 - 8, 10) |
| KT001720P214 | Glass Plate, 478 x 165mm |
| KT001720P012 | ASTM Test Foil 250µm (10mils) |
| KT001720P013 | 10m Replacement Channel Gasket |
| K0004695M068 | Scrub Test Panels - see page 7 |

Scrub Test Panels

Elcometer 4695

In a typical scrub test, the coating is applied to the Leneta Scrub Test Panel at a specified film thickness, allowed to dry and then subjected to scrubbing with a straight-line scrub tester.

When used in accordance with ASTM D2486, Method A, a 10mil shim is inserted under the panel to accelerate failure and thereby reduce testing time. The scrub resistance is the number of scrub cycles required to remove the coating to a specified end point.

Alternatively, the loss in weight is determined after a specified number of scrub resistance cycles, with calculation of equivalent loss in film thickness.

These Scrub Test Panels are ideal for use with the Elcometer 1720 Washability & Abrasion Testers, see page 2.



Form P121-10N



Fig 1. Typical failure using shim per ASTM D2486 Method A



Fig 2. Typical failure without

STANDARDS:
ISO 11998

Technical Specification

| Part Number Box | Case | Description | Chart Dimensions | | Quantity per Box | Boxes per Case |
|--------------------|--------------|---------------------------------|------------------|---------|---------------------|-------------------|
| | | | mm | inches | | |
| K0004695M068 | K0004695M268 | Black Scrub Test Panel P121-10N | 165 x 432 | 6½ x 17 | 100 | 5 |
| K0004695M069 | K0004695M269 | White Scrub Test Panel P123-10N | 165 x 432 | 6½ x 17 | 100 | 5 |

Accessories

KT001720P012 ASTM Test Foil 250µm (10mils)

Elcometer 1700 & 1750

Taber® Rotary Abrasers



Used primarily in the testing of ceramics, plastics, textiles, metals, leather, rubber and painted, lacquered and electroplated surfaces, accelerated wear test procedures have also been written into many test specifications including ASTM, ISO, TAPPI and DIN - as well as automotive manufacturing procedures around the world.

The Taber® Rotary Abraser is an industry standard used in the wear and durability testing and is available with either a single test head or dual testing heads, which allows the user to test two different or identical materials simultaneously.

Choose from a wide variety of abrading wheels and abraser accessories to simulate real-life wear conditions.

Features:

- Platform speeds 60 and 72rpm
- Balanced, calibrated arms and wheel mounts
- Vacuum system with precision height adjustment
- Sealed aluminium housing with membrane control panel and digital display

STANDARDS:

ANSI INCITS 322, AS/NZS 1580.403.2, AS/NZS 4266.2, ASTM C1353, ASTM C217, ASTM C241, ASTM C501, ASTM D1044, ASTM D3389, ASTM D3884, ASTM D4060, ASTM D6037, ASTM D-7255, ASTM F1478, ASTM F1978, ASTM F362, ASTM F 510, BS 5599, DIN 52347, DIN 53109, DIN 53754, DIN 53799, DIN 68861-2, ECCA T16, EN 13329, EN 13523-16, EN 14323, EN 14327, EN 14354, EN 14431, EN 14688, EN 14864, EN 1504-2, EN 438-2, EN 660-2, EN 13696, FORD BN108-02, GM9515P, ISO 10074, ISO 14656, ISO 24338, ISO 3537, ISO 4586-2, ISO 5470-1, ISO 7784-1, ISO 7784-2, ISO 9352, JIS A 1453, JIS H 8503, JIS K 5600-5-8, JIS K 5600-5-9, JIS K 6404-22, JIS K 6902, JIS K 7205, NEMA LD 3, NF Q03-055, SAE J 1530, SAE J 1847, SAE J 365, SAE J 948, SIS 923509, SS 923509, TAPPI T 476, UNE 135203-1, UNE 48250, UNE 56842, UNE 56843, UNE 56868, UNE 57095

Technical Specification

| Part Number | Description | Certificate |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| UK/EUR 230V US 115V | | |
| ST981700-2 ST981700-1 | Elcometer Taber® 1700 Single Head Abraser | ● |
| ST981750-2 ST981750-1 | Elcometer Taber® 1750 Dual Head Abraser | ● |
| Dimensions & Weights | Elcometer Taber® 1700: | 315 x 391.2 x 213.4mm (12.4 x 15.4 x 8.4"), 14.9kg (33lb) |
| | Elcometer Taber® 1750: | 535.9 x 393.7 x 213.4mm (21.1 x 15.5 x 8.4"), 24.9kg (55lb) |
| | Vacuum unit: | 279 x 279 x 610mm (11 x 11 x 24"), 10.4kg (23lb) |
| Packing List | <p>Elcometer Taber® 1700 Single Head Abraser: Single head abraser unit with switchable power input (115/230v, 60/50hz), vacuum unit (power supply to be specified at time of order), 2 x 500g auxiliary weights, 2 x 1000g auxiliary weights, SH-125 specimen holder (supplied fitted to the abraser), SH-101 hold down ring (supplied fitted to the abraser), S-12 hand brush, Torx T25 screwdriver, operating instructions</p> <p>Elcometer Taber® 1750 Dual Head Abraser: Dual head abraser unit with switchable power input (115/230v, 60/50hz); vacuum unit (power supply to be specified at time of order), vacuum y-adaptor & hose kit, 4 x 500g auxiliary weights, 4 x 1000g auxiliary weights, 2 x SH-125 specimen holder (supplied fitted to the abraser), 2 x SH-101 hold down ring (supplied fitted to the abraser), S-12 hand brush, Torx T25 screwdriver, operating instructions</p> | |

● Calibration Certificate supplied as standard.

Elcometer 1700 & 1750

Taber® Abrading Wheels



Taber® Abrading Wheels are available in five levels of abrasiveness to suit a wide range of material testing applications.

Wool, felt or plain rubber wheels test delicate materials or abrasiveness of materials such as dental powders.

Wheels featuring abrasive particles in a resilient matrix of rubber or a hard matrix of vitrified clay are suitable for stiffer materials.

- *Calibrase®*: resilient abrasive wheel - rubber and aluminium oxide
- *Calibrade®*: a non-resilient abrasive wheel - vitrified clay and silicon carbide
- *Plain Rubber*: contains no abrasive particles unless used with sandpaper strips
- *Tungsten Carbide*: severe cutting and tearing action with helical teeth for use on resilient materials such as rubber, leather and floor coverings

Technical Specification

Elcometer 1700 and 1750 Taber® Rotary Abrasers (2 wheel set)

| Part Number | Description | Abrasive Action | Composition |
|-------------|-------------------------------------------|-----------------|---------------------------------|
| ST125319 | CS-5 Resilient Wheel (Pack of 2) | None | Wool Felt |
| ST135177 | CS-8 Resilient Wheel Set (Pack of 2) | Extra Mild | Rubber & Abrasive Grain |
| ST125321 | CS-10F Resilient Wheel (Pack of 2) | Very Mild | Rubber & Abrasive Grain |
| ST125320 | CS-10 Resilient Wheel (Pack of 2) | Mild | Rubber & Abrasive Grain |
| ST132684 | CS-10P Resilient Wheel Set (Pack of 2) | Mild | Rubber & Abrasive Grain |
| ST130950 | CS-10W Resilient Wheel Set (Pack of 2) | Mild | Rubber & Abrasive Grain |
| ST125322 | CS-17 Resilient Wheel (Pack of 2) | Harsh | Rubber & Abrasive Grain |
| ST125345 | S-35 Non-resilient Wheel (Pack of 2) | Severe Cutting | Tungsten Carbide |
| ST125529 | S-39 Non-Resilient Wheel (Pack of 2) | - | Leather |
| ST132720 | S-24 Non-Resilient Wheel (Pack of 2) | - | Aluminium |
| ST125323 | H-10 Non-resilient Wheel (Pack of 2) | Coarse | Vitrified Clay |
| ST125324 | H-18 Non-resilient Wheel (Pack of 2) | Medium, Coarse | Vitrified Clay |
| ST125325 | H-22 Non-resilient Wheel (Pack of 2) | Very Coarse | Vitrified Clay |
| ST125326 | H-38 Non-resilient Wheel (Pack of 2) | Very Fine, Hard | Vitrified Clay |
| ST125344 | CS-0, S-32 Resilient Wheel (Pack of 2) | Very Mild | Non-Abrasive Rubber |
| ST132661 | CS-T3 Resilient Wheel Set (Pack of 2) | Very Mild | Rubber & Abrasive Grain |
| ST125564 | Sand Paper Strips for use with CS-0, S-42 | Medium | Sand Paper Strips (pack of 100) |
| ST121124 | Sand Paper Strips for use with CS-0, S-33 | Fine | Sand Paper Strips (pack of 100) |

All the items listed above are compatible with both the new (Elcometer 1700 and Elcometer 1750) and old models (Elcometer 5135 and Elcometer 5155)

Elcometer 5135 & 5155

Taber® Rotary Abraser Accessories

Accessories



Sample Cutter

The Model 5000 Sample Cutter will cut a precise 106mm (4.2") circular sample with a 6.35mm (0.25") centre hole to prepare your specimens for use with the Elcometer Taber® Abrasers.

An easy counter-clockwise cutting motion allows you to cut a variety of materials. Optional pads, which allow cutting thicknesses of 0.03mm (0.001") to 6.35mm (0.25"), are also available.

| Part Number | Description |
|-------------|--------------------------------|
| ST985000 | Model 5000 Sample Cutter |
| ST128530 | Replacement Blades (Pack of 5) |



Taber® Grit Feeder

The Grit Feeder is a freestanding instrument used in conjunction with the Taber Abraser (Model 1700 or 1750).

During testing, abrasive grit particles (e.g. aluminum oxide) are uniformly and continuously distributed onto the specimen surface at a specified rate. As the specimen holder rotates, the loose grit particles pass under two S-39 leather clad brass wheels.

Used grit and wear debris are then removed by the Taber Abraser vacuum system. The operation of the Grit Feeder is controlled through the Taber Abraser, ensuring the specimen holder turntable, grit distribution and vacuum suction are actuated simultaneously.

Part Number: ST980355

Elcometer 5135 & 5155

Taber® Rotary Abraser Accessories

Quiet Cabinet



Comprising an upper and lower unit, this solid wood cabinet is suitable for use in a laboratory environment and achieves an approximate 20% reduction in operating sound level.

The top cabinet provides a convenient, dust-free workspace for the Abraser and features a Plexiglas® viewing window to monitor testing and a removable front for easy transfer of the Abraser in and out of the cabinet.

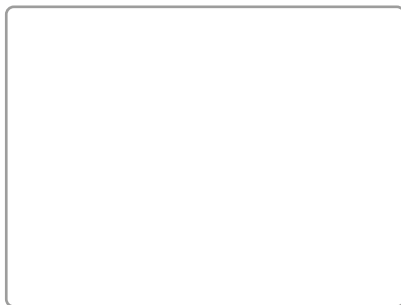
The base cabinet holds the Abraser Vacuum Unit and includes an inbuilt exhaust system for effective air circulation.

Both cabinets offer ample room to store test specimens, supplies and accessories. The Quiet Cabinet can be purchased as a complete unit or the top and base separately. The lower cabinet exhaust system is available for 230V/50Hz or 115V/60Hz.

Technical Specification

| Part Number | Description |
|-------------|---------------------------------------------------------------------|
| ST129497 | Complete 230V - both upper and base cabinets |
| ST128372 | Complete 115V - both upper and base cabinets |
| ST129498 | Base unit only 230V - includes vacuum unit |
| ST128371 | Base unit only 115V - includes vacuum unit |
| ST128370 | Upper unit only - workspace and viewing window |
| ST133439-1 | Upper unit only - large version for use with Grit Feeder Attachment |

Calibration Verification Kit



A cost effective method that enables users to verify that an instrument is in calibration, or requires attention. Each kit is individually calibrated providing a reliable check system.

Kit allows you to verify:

- Longitudinal alignment of abraser arm
- Transverse alignment of abraser arm
- Wheel tracking and wear pattern
- Bearing integrity (tracking pattern compliance)
- Vacuum nozzle orifice size
- Minimum vacuum nozzle suction force
- S-30 Weartrac precision wheels (x1 set)

Technical Specification

| Part Number | Description |
|-------------|------------------------------|
| ST132030 | Calibration Verification Kit |

elcometer®
inspection equipment



Elcometer 5135 & 5155
Rotary Abrasers

Elcometer 5135 & 5155 Taber® Rotary Abrasers



Used primarily in the testing of ceramics, plastics, textiles, metals, leather, rubber and painted, lacquered and electroplated surfaces, accelerated wear test procedures have also been written into many test specifications including ASTM, ISO, TAPPI and DIN - as well as automotive manufacturing procedures around the world.

The Taber® Rotary Abraser is an industry standard used in the wear and durability testing and is available with either a single test head or dual testing heads, which allows the user to test two different or identical materials simultaneously.

Choose from a wide variety of abrading wheels and abraser accessories to simulate real-life wear conditions.

Features :

- Platform speeds 60 and 72rpm
- Balanced, calibrated arms and wheel mounts
- Vacuum system with precision height adjustment
- Sealed aluminium housing with membrane control panel and digital display



STANDARDS:

ANSI INCITS 322, AS/NZS 1580.403.2, AS/NZS 4266.2, ASTM C1353, ASTM C217, ASTM C241, ASTM C501, ASTM D1044, ASTM D3389, ASTM D3884, ASTM D4060, ASTM D6037, ASTM D-7255, ASTM F1478, ASTM F1978, ASTM F362, ASTM F 510, BS 5599, DIN 52347, DIN 53109, DIN 53754, DIN 53799, DIN 68861-2, ECCA T16, EN 13329, EN 13523-16, EN 14323, EN 14327, EN 14354, EN 14431, EN 14688, EN 14864, EN 1504-2, EN 438-2, EN 660-2, EN 13696, FORD BN108-02, GM9515P, ISO 10074, ISO 14656, ISO 24338, ISO 3537, ISO 4586-2, ISO 5470-1, ISO 7784-1, ISO 7784-2, ISO 9352, JIS A 1453, JIS H 8503, JIS K 5600-5-8, JIS K 5600-5-9, JIS K 6404-22, JIS K 6902, JIS K 7205, NEMA LD 3, NF Q03-055, SAE J 1530, SAE J 1847, SAE J 365, SAE J 948, SIS 923509, SS 923509, TAPPI T 476, UNE 135203-1, UNE 48250, UNE 56842, UNE 56843, UNE 56868, UNE 57095

Technical Specification

| Part Number | | Description | Certificate |
|----------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| UK/EUR 230V | US 115V | | |
| ST985135-2 | ST985135-1 | Elcometer Taber® 5135 Single Head Abraser | • |
| ST985155-2 | ST985155-1 | Elcometer Taber® 5155 Dual Head Abraser | • |
| Dimensions & Weights | | Elcometer Taber® 5135: | 279 x 406 x 279mm (11 x 16 x 11"), 19.50kg (43lb) |
| | | Elcometer Taber® 5155: | 482 x 355 x 279mm (19 x 14 x 11"), 31.75kg (70lb) |
| | | Vacuum unit: | 279 x 279 x 610mm (11 x 11 x 24"), 10.00kg (22lb) |
| Packing List | | Elcometer Taber® Abraser, auxiliary weights - 1 x 500g (17.64oz) load and 1 x 1000g (35.27oz) load, specimen holder 109.2mm (4.3") O/D (E-100-125), holding down ring (E-100-101), 100 x refacing discs (S-11), Calibrase® Wheel set (CS-10), Calibrade® Wheel set (H-18), vacuum unit with suction hose, round brush, power leads (115V and 230V) and operating instructions | |



For the complete range of Accessories, see pages 3 - 5

• Calibration Certificate supplied as standard.

Abrading Wheels

Taber® Abrading Wheels are available in five levels of abrasiveness to suit a wide range of material testing applications.

Wool, felt or plain rubber wheels test delicate materials or abrasiveness of materials such as dental powders.

Wheels featuring abrasive particles in a resilient matrix of rubber or a hard matrix of vitrified clay are suitable for stiffer materials.

- **Calibrase®** : resilient abrasive wheel - rubber and aluminium oxide
- **Calibrade®**: a non-resilient abrasive wheel - vitrified clay and silicon carbide
- **Plain Rubber**: contains no abrasive particles unless used with sandpaper strips
- **Tungsten Carbide**: severe cutting and tearing action with helical teeth for use on resilient materials such as rubber, leather and floor coverings

Elcometer 5135 & 5155



Technical Specification

Elcometer 5135 and 5155 Taber® Rotary Abrasers (2 wheel set)

| Part Number | Description | Abrasive Action | Composition |
|-------------|-------------------------------------------|-----------------|---------------------------------|
| ST125319 | CS-5 Resilient Wheel (Pack of 2) | None | Wool Felt |
| ST125321 | CS-10F Resilient Wheel (Pack of 2) | Very Mild | Rubber and Abrasive Grain |
| ST125320 | CS-10 Resilient Wheel (Pack of 2) | Mild | Rubber and Abrasive Grain |
| ST125322 | CS-17 Resilient Wheel (Pack of 2) | Harsh | Rubber and Abrasive Grain |
| ST125345 | S-35 Non-resilient Wheel (Pack of 2) | Severe Cutting | Tungsten Carbide |
| ST125323 | H-10 Non-resilient Wheel (Pack of 2) | Coarse | Vitrified Clay |
| ST125324 | H-18 Non-resilient Wheel (Pack of 2) | Medium, Coarse | Vitrified Clay |
| ST125325 | H-22 Non-resilient Wheel (Pack of 2) | Very Coarse | Vitrified Clay |
| ST125326 | H-38 Non-resilient Wheel (Pack of 2) | Very Fine, Hard | Vitrified Clay |
| ST125344 | CS-0, S-32 Resilient Wheel (Pack of 2) | Very Mild | Non-Abrasive Rubber |
| ST125564 | Sand Paper Strips for use with CS-0, S-42 | Medium | Sand Paper Strips (pack of 100) |
| ST121124 | Sand Paper Strips for use with CS-0, S-33 | Fine | Sand Paper Strips (pack of 100) |

For use with the Elcometer 5135 & 5155 Taber® Rotary Abrasers, see page 2



Elcometer 5135 & 5155 **Taber® Rotary**

Accessories



Multi-Media Attachment

This attachment is used to recreate contact surface wear caused by liquids, fluids and powders. Measures the abrasivity of materials including paints, pigments, adhesives, sealants, pastes, additives etc.

If you require either the Elcometer Taber® 5135 or Taber® 5155 ready assembled with the Multi-Media Attachment, please contact Elcometer.

Part Number: **ST985500**



Sample Cutter

The Model 5000 Sample Cutter will cut a precise 106mm (4.2") circular sample with a 6.35mm (0.25") centre hole to prepare your specimens for use with the Elcometer Taber® Abrasers.

An easy counter-clockwise cutting motion allows you to cut a variety of materials. Optional pads, which allow cutting thicknesses of 0.03mm (0.001") to 6.35mm (0.25"), are also available.

Part Number: **ST985000**



Grit Feeder Attachment

Provides a unique method to evaluate 3-body abrasion resistance on a variety of materials. Aluminium oxide grit particles are evenly distributed on to the specimen wear path and pass under a pair of leather wheels. This loose grit acts as an abradant aiding the action that contributes to the physical breakdown of materials.

The Abraser Vacuum is attached to the grit feeder and continuously removes both abraded material and used grit.

The Grit distributor and vacuum removal nozzle heights are adjusted using a thumbscrew.

Two versions are available, Model 155 and Model 255. The Model 155 uses an alignment guide screw to set the position of the instrument. An alignment block is incorporated into the base of Model 255, to ensure the correct location of the grit feeder in relation to the Abraser.

Both models are supplied complete with:

- S-39 Leather wheel set
- S-38 Standardisation Plates
- S-41 #240 Aluminium oxide
- Alignment guide and mounting hardware

Part Number: **ST980503-1** Model 155

Part Number: **ST980503-2** Model 255

Taber® Rotary Abrasers

Elcometer 5135 & 5155

Quiet Cabinet

Comprising an upper and lower unit, this solid wood cabinet is suitable for use in a laboratory environment and achieves an approximate 20% reduction in operating sound level.

The top cabinet provides a convenient, dust-free work space for the Abraser and features a Plexiglas® viewing window to monitor testing and removable front for easy transfer of the Abraser in and out of the cabinet.

The base cabinet holds the Abraser Vacuum Unit and includes an inbuilt exhaust system for effective air circulation.

Both cabinets offer ample room to store test specimens, supplies and accessories. The Quiet Cabinet can be purchased as a complete unit or the top and base separately. The lower cabinet exhaust system is available for 230V/50Hz or 115V/60Hz.



Technical Specification

| Part Number | Description |
|-------------|-------------------------------------------------|
| ST129497 | Complete 230V - both upper and base cabinets |
| ST128372 | Complete 115V - both upper and base cabinets |
| ST129498 | Base unit only 230V - includes vacuum unit |
| ST128371 | Base unit only 115V - includes vacuum unit |
| ST128370 | Upper unit only - work space and viewing window |

Calibration Verification Kit

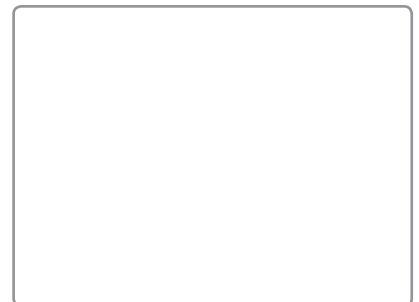
A cost effective method that enables users to verify that an instrument is in calibration, or requires attention. Each kit is individually calibrated providing a reliable check system.

Kit allows you to verify:

- Longitudinal alignment of abraser arm
- Transverse alignment of abraser arm
- Wheel tracking and wear pattern
- Bearing integrity (tracking pattern compliance)
- Vacuum nozzle orifice size
- Minimum vacuum nozzle suction force
- S-30 Weartrac precision wheels (x1 set)

Supplied complete with:

- S-45 Wheel tracking cards (x15)
- Vacuum nozzle suction and orifice gauge
- Vacuum nozzle O-ring
- Dual unit vacuum plug
- Taber® Abraser clean-up hose



Technical Specification

| Part Number | Description |
|-------------|------------------------------|
| ST132030 | Calibration Verification Kit |

Elcometer 5750 Taber® Linear Abrasers

Whatever your product, be it curved, round, big or small, the Linear Abraser from Taber® can test it all.

Using a free floating head to follow the contours of the sample, the Taber® 5750 is the ideal abrasion tester for flat or curved surfaces. It may also be used as a scratch tool, using the scratch kit accessory.

Abrasion media, length of stroke, load and speed of stroke can all be user defined to meet specific requirements.

The Linear Abraser uses a range of Wearasers®. The size and shape of a pencil eraser, the Wearaser® uses the same high quality Taber® abrasive media as used on the Taber® Rotary Abrasers, simulating real-life wear conditions.

Features:

- Stroke lengths of 12.7, 25, 76 and 102mm (0.5, 1.0, 3.0 and 4.0")
- Variable stroke speed from 2 - 75 cycles per minute
- Preset stroke speed buttons for 2, 15, 25, 30, 40 and 60 cycles per minute
- Variable load from 350 - 2100g (12.4 - 74.1oz) with optional weights
- Stainless steel Wearaser® holder (Collet) for use with vitrified or resilient Wearasers®
- Laser alignment guide



STANDARDS:

AATCC Method 8, ASTM D 2197, ASTM D 5178,
ASTM D 6279, ASTM F1319, ISO 105-X12, JIS L 0849

Elcometer 5750 Taber® Linear Abrasers

Technical Specification

| Part Number | Description |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ST985750 | Elcometer Taber® 5750 Linear Abraser (230V/115V, 50/60Hz) |
| Dimensions | 208 x 228 x 279mm (20 x 9 x 11") |
| Weight | 10kg (22lb) |
| Packing List | Elcometer Taber® 5750 Linear Abraser, Wearaser® Collet and Spine Shaft, 3 x 250g (8.82oz) discs, 10 x CS-10 Wearasers®, 5 x H-18 Wearasers®, power cords (230V and 115V), allen key, Wearaser® depth tool gauge, 50 x S-14 refacing strips, hand brush and operating instructions |

Accessories

| Part Number | Description | Abrasive Action | Composition |
|-------------------|-------------------------------------------|-----------------|---------------------------|
| ST130684 | CS-10F Resilient Wearaser® (pack of 10) | Very Mild | Rubber and Abrasive Grain |
| ST130685 | CS-10 Resilient Wearaser® (pack of 10) | Mild | Rubber and Abrasive Grain |
| ST130686 | CS-17 Resilient Wearaser® (pack of 10) | Harsh | Rubber and Abrasive Grain |
| ST130681 | H-18 Non-resilient Wearaser® (pack of 5) | Medium, Coarse | Vitrified Clay |
| ST130682 | H-22 Non-resilient Wearaser® (pack of 5) | Very Coarse | Vitrified Clay |
| ST131852 | Wearaser™ Holder (collet) Kit - Aluminium | | |
| ST131852-1 | Wearaser™ Holder (collet) Kit - Plastic | | |
| ST130570 | Crockmeter Kit* | | |

*Crockmeter kit includes finger, clamp ring and cloths

elcometer®
inspection equipment



Elcometer 4695
Test Charts

Test Charts

Elcometer 4695



STANDARDS:
AS/NZS 1580.213.1, ASTM D 344,
ASTM D 2805, ASTM D 2486,
ASTM D 5150, ASTM D 6441,
BS 3900-D4, DIN 53162-2,
FTMS 141 4121, ISO 2814

Leneta Test Charts

Elcometer supplies a wide range of Leneta Test Charts, from plain white to those having different patterns of black and white. Made from naturally bright, non-flourescent white paper, these charts contain no optical brighteners that can affect instrumental colour measurements.

Leneta Test Charts are the market standard in today’s coatings industry.

Foil Card substrates of steel, aluminium, glass and plastic are also available.

Leneta Test Charts are available in boxes & cases.

Elcometer 4695



Form 2A Form 2C



Form 3B Form 5C

Opacity Charts

The term “Opacity Chart” refers to charts on which the test pattern is a simple combination of black and white areas, large enough for wider aperture reflectance instruments, as well as for visual opacity and colour observations.

Used to test the hiding power of the coating, using large black and white areas.

Technical Specification

| Part Number Box | Case | Description | Chart Dimensions | | Box Weight | Quantity per Box | Boxes per Case |
|--------------------|--------------|-----------------|------------------|----------------|--------------|---------------------|-------------------|
| | | | mm | inches | | | |
| K0004695M003 | K0004695M203 | Leneta Chart 2A | 140 x 254 | 5 1/2 x 10 | 2.72kg (6lb) | 250 | 6 |
| K0004695M004 | - | Leneta Chart 2C | 194 x 260 | 7 5/8 x 10 1/4 | 4.08kg (9lb) | 250 | 4 |
| K0004695M006 | K0004695M206 | Leneta Chart 3B | 194 x 289 | 7 5/8 x 11 3/8 | 4.08kg (9lb) | 250 | 4 |
| K0004695M015 | K0004695M215 | Leneta Chart 5C | 194 x 260 | 7 5/8 x 10 1/4 | 4.08kg (9lb) | 250 | 4 |



Can be used with the Elcometer 4340 Motorised Film Applicator

Brushout Cards

Designed for informal brushout applications, thicker paper is used for the testing of coatings applied with a brush or roller.

The paper stock is almost twice the thickness of regular chart paper to give greater rigidity for more convenient handling - nominal thickness 0.5mm (20 mils).

Brushout Cards are also used widely for drawdowns and colorimetric measurements.

Elcometer 4695



Form 2DX



Form 5DX



Form WDX

Technical Specification

| Part Number Box | Case | Description | Chart Dimensions | | Box Weight | Quantity per Box | Boxes per Case |
|--------------------|--------------|------------------|------------------|-----------|--------------|---------------------|-------------------|
| | | | mm | inches | | | |
| K0004695M005 | K0004695M205 | Leneta Chart 2DX | 98 x 152 | 3 7/8 x 6 | 3.18kg (7lb) | 500 | 4 |
| K0004695M016 | K0004695M216 | Leneta Chart 5DX | 98 x 152 | 3 7/8 x 6 | 3.18kg (7lb) | 500 | 4 |
| K0004695M102 | K0004695M302 | Leneta Chart WDX | 98 x 152 | 3 7/8 x 6 | 3.18kg (7lb) | 500 | 4 |

Duplex Applicator Charts

Elcometer 4695

Originally made to be used with the Duplex Film Applicator, an instrument designed for rapid production of side-by-side drawdowns, they now serve mostly as generic paint test charts.



Form WF

Technical Specification

| Part Number Box | Case | Description | Chart Dimensions | | Box Weight | Quantity per Box | Boxes per Case |
|--------------------|------|-----------------|------------------|-----------|--------------|---------------------|-------------------|
| | | | mm | inches | | | |
| K0004695M103 | - | Leneta Chart WF | 76 x 184 | 3 x 7 1/4 | 2.27kg (5lb) | 500 | - |

Can be used with the Elcometer 4340 Motorised Film Applicator



Test Charts

Elcometer 4695

Display Charts/Spreading Rate

Display Chart



Form 8B

Spreading Rate Chart



Form 8H

These charts employ time-tested, diagonally striped patterns, having a strong visual impact that emphasises variations in film opacity. They are frequently used for hiding power display purposes, by means of drawdowns or brushouts.

Spreading Rate Charts (Form 8H) are accurately 0.1 square metres (approximately one square foot) in area, and are used in brushout hiding tests at specified spreading rates as described in ASTM Method D 344.

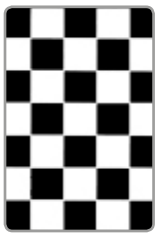
Technical Specification

| Part Number | | Description | Chart Dimensions | | Box Weight | Quantity per Box | Boxes per Case |
|--------------|--------------|-----------------|------------------|-----------------|--------------|------------------|----------------|
| Box | Case | | mm | inches | | | |
| K0004695M022 | K0004695M222 | Leneta Chart 8B | 194 x 289 | 7 5/8 x 11 3/8 | 4.08kg (9lb) | 250 | 4 |
| K0004695M023 | K0004695M223 | Leneta Chart 8H | 286 x 438 | 11 1/4 x 17 1/4 | 5kg (11lb) | 125 | 4 |

Elcometer 4695

Checkerboard Charts

Display Chart



Form 10B

One of the earliest hiding power test surfaces was linoleum with a black and white checkerboard pattern, this was soon replaced by sealed paperboard charts.

Checkerboard Rate Charts are typically used in drawdown hiding tests.

Technical Specification

| Part Number | | Description | Chart Dimensions | | Box Weight | Quantity per Box | Boxes per Case |
|--------------|------|------------------|------------------|----------------|--------------|------------------|----------------|
| Box | Case | | mm | inches | | | |
| K0004695M030 | - | Leneta Chart 10B | 194 x 289 | 7 5/8 x 11 3/8 | 4.08kg (9lb) | 250 | 4 |



Can be used with the Elcometer 4340 Motorised Film Applicator

Metopac™ Metal Test Panels

Painted steel panels, used for measuring the hiding power of powder coatings and industrial enamels.

Available in half black/half white and all black.

Black surface:

Solvent Resistant, Non bleeding, Reflective

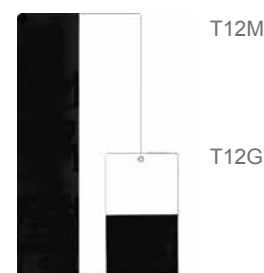
- 1% maximum, measured according to ASTM Method E1347

White surface:

Solvent Resistant, Colour Retentive, Reflective, Reflectance

- 80% minimum, measured according to ASTM Method E1347

Elcometer 4695



Technical Specification

| Part Number Box | Case | Description | Chart Dimensions | | Box Weight | Quantity per Box | Boxes per Case |
|--------------------|--------------|-------------------|------------------|-------------------------------------|--------------|---------------------|-------------------|
| | | | mm | inches | | | |
| K0004695M094 | K0004695M294 | Leneta Panel T12G | 76 x 132 | 3 x 5 ³ / ₁₆ | 3.63kg (8lb) | 125 | 4 |
| K0004695M095 | K0004695M295 | Leneta Panel T12M | 132 x 279 | 5 ³ / ₁₆ x 11 | 1.81kg (4lb) | 50 | 4 |

Plain White Charts

Available in varying thicknesses and size. The Leneta WDX card comes with convenience hole at the top.

Elcometer 4695



Technical Specification

| Part Number | | Description | Chart Dimensions | | Box Weight | Quantity per Box | Boxes per Case |
|----------------------|--------------|------------------|------------------|----------|--------------|------------------|----------------|
| Box | Case | | mm | inches | | | |
| Card thickness 0.5mm | | | | | | | |
| K0004695M102 | K0004695M302 | Leneta Chart WDX | 98 x 152 | 37/8 x 6 | 3.18kg (7lb) | 500 | 4 |
| Card thickness 0.3mm | | | | | | | |
| K0004695M103 | - | Leneta Chart WF | 76 x 184 | 3 x 71/4 | 2.27kg (5lb) | 500 | 6 |

Can be used with the Elcometer 4340 Motorised Film Applicator



Test Charts

Elcometer 4695



Form N2A

Unvarnished Test Charts

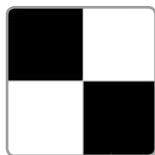
Unvarnished Test Charts are ideal for testing applications of clear coatings and stains.

The unvarnished (semi-porous) surface simulates wood or unsealed wallboard.

Technical Specification

| Part Number | | Description | Chart Dimensions | | Box Weight | Quantity per Box | Boxes per Case |
|--------------|--------------|------------------|------------------|------------|--------------|------------------|----------------|
| Box | Case | | mm | inches | | | |
| K0004695M064 | K0004695M264 | Leneta Chart N2A | 140 x 254 | 5 1/2 x 10 | 2.72kg (6lb) | 250 | 6 |

Elcometer 4695



Form M12

Spray Monitors - Self Adhesive Hiding Power

These are pressure sensitive labels with a hiding power test pattern and a sealed, solvent-resistant surface. They are used primarily with metal panels on which the panel alone provides no visual clue as to the thickness of the applied paint film.

When placed on such a surface the Monitor presents a contrasting feature by which to observe how well the coating hides the surface, thereby facilitating film thickness control. It adheres firmly whether air-dried or baked, to present a permanent visual record of film opacity.

Technical Specification

| Part Number | | Description | Chart Dimensions | | Box Weight | Quantity per Box | Boxes per Case |
|--------------|--------------|--------------------------|------------------|--------|--------------|------------------|----------------|
| Box | Case | | mm | inches | | | |
| K0004695M056 | K0004695M256 | Leneta Spray Monitor M12 | 25 x 25 | 1 x 1 | 0.91kg (2lb) | 2000 | 4 |

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
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Пенза (8412)22-31-16
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Севастополь (8692)22-31-93
Саранск (8342)22-96-24
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
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Ставрополь (8652)20-65-13
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Сыктывкар (8212)25-95-17
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Якутск (4112)23-90-97
Ярославль (4852)69-52-93

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