

## Surface Abrasion Testing.



Suitable for carrying out P.E.I. (wet) method tests according to UNI EN ISO 10545-7 norm.

The test involves exposing the glazed material to the abrasive action of a charge comprising balls of different diameters with the addition of corundum and distilled water (P.E.I. method). The different abrasion stages are achieved by programming the machine at an increasingly higher number of revs, with fixed instrument speed as required by the standard. Later on, a visual analysis of the test result will classify it in the various abrasion groups envisaged by the method.

General characteristics

Rotating groups, adjustment by means of a pre-settable digital electronic pulse counter, with digit LED display. Accurate finishing. The machine components are extremely tough. Bearing structure in epoxy powder painted sheet metal. Height adjustable vibration damping base supports. Aluminium charge-holding cups.

Electric board coming with inverter for a precise regulation of rpm and fast set up during calibration phase.

Power supply 230 V single-phase 50/60 Hz, 0,5 kW.

Accessories supplied (for each rotating group):

1 complete PEI abrasive charge and 0,5 kg of corundum (one abrasive charge can be used 10-15 times, depending on the average number of revolutions made during the tests), and 1 sealing gasket for structured surfaces.

### Product codes.

Model PEI/300/D, 01CI0104/1

with 3 testing heads, complete with protective cover, safety microswitch and observation window. 77 x 55 x 52cm, c.80kg

Model PEI/100/D, 01CI0103/2

with 1 testing head, complete with protective cover and safety microswitch 35 x 57 x 63cm, 40kg

PEI complete abrasive charge (0.2kg)

01CI0101/A

FEPA 80 Corundum (1 kg)

01CI0101/B

Pack of 10 calibration float glasses 105 x 105 x 6mm

01CI0101/1



## PEI-BOX Viewing Cabinet



The PEI-BOX cabinet has been especially designed to check the level of abrasion on glazed ceramic tiles in accordance with ISO 10545 part 7 and ASTM C1027 -99 (2004).

The inside of the cabinet is painted in "neutral grey" as required by the standards. To carry out the test, place the PEI-BOX instrument in a dark room, and place the abraded tile of 100x100mm in the centre surrounded by 8 unabraded tiles of the same dimensions. Write on the marked face the r.p.m. corresponding to the abrasion made.

Observing the tile specimen from a distance of 2 m and a height of 1,65 m it is possible to see the difference between the tile abraded and the other unabraded tiles.

To ensure that the test is true, the witness of at least three observers is required

Overall Dimensions: 700 x 650 x 630mm , approx. 35kg

LED Illumination with colour temperature of 6000K

checked teflon surface for test specimen

adjustable feet with hard rubber bases

Product Code:

PEI-BOX Cabinet

Luxmeter 0—50,000 Lux

01CI0170/1

LX-105

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## Depth Abrasion Testing.

### Standardized Depth Abrasion Tester, Model AP/10.

The AP/10 is an instrument for the depth abrasion determination of unglazed ceramic tiles, to meet the standards of European Norm EN102 and ISO 10545-6. The test consists of exposing the sample to the abrasive action of a steel disk rotating against the surface while corundum is fed from the fixed hopper at a given rate between the disk and the sample surface. At the end of the cycle the trace chord length is measured, and the volume of material removed is calculated, giving the comparison parameter for test classification.

The latter will act as the benchmark parameter for test classification.

The instrument can also be used for deep abrasion tests of glazed ceramic tiles (non-standard test).

In this case, the machine is programmed to turn at an increasingly higher number of revs, with fixed instrument speed, until the body appears.

The benchmark parameter will be the number of revs required to remove the layer of glaze until the body becomes visible.

#### General characteristics

- Epoxy powder painted sheet metal structure. Vibration-damping feet.
- Drawer for collecting the corundum used during tests. 600 cc corundum container. Corundum fall system operated automatically.
- The steady pressure of the test sample on the abrasion disk is achieved by a system of counterweights.
- The test sample is fastened with 2 clamps.



#### Automatic test cycle.

- Programming by means of an electronic control panel with LCD display.
- Safety front door with microswitch.

Supplied with 2 kg of FEPA 80 corundum.

230V single-phase 50 Hz.

Overall dimensions: 61 x 65 x 74 cm.

Net weight: 52 kg.

#### Product Code.

Model AP/10 Depth Abrasion Tester.

Standardised replacement disc, net weight 2.5kg

FEPA 80 corundum 1kg

Calibration tile, (transparent fused silica, size 100mm x 100mm x 5mm)

01CI0107

01CI0106/A

01CI0101/B

01CI0107/B