

Standard penetrometers

EN 1426 | ASTM D5 | AASHTO T49

MAIN FEATURES

- Digital penetration measurement
- Complete with micrometer vertical adjustment
- Semi-automatic version with automatic controller, complete with micrometer vertical adjustment and adjustable electronic timer of the fall time
- Digital circulation water bath with cooling coil and immersion probe available. An additional water chiller is available but not strictly necessary
- The electronic timer allows the user to set up and read the fall time of the needle during testing

GENERAL DESCRIPTION

Cast iron base with leveling screws, digital penetration measurement gauge 0.01 mm precision, release button, automatic zeroing. Semi-automatic model 81-B0101/E is supplied complete with automatic controller, which automatically releases the plunger by a magnetic device, complete with micrometer vertical adjustment and adjustable electronic timer of the fall time, according to EN 1426, ASTM D5, AASHTO T49. Both models are fit with a micrometer vertical adjustment device. Needles, cups, thermometer and mirror are not included and have to be ordered separately. See accessories.

The instrument is provided with lead screw gear arrangement, Levelling screws, Spirit level. The head can be clamped at any desired height. A rack and pinion and pointer assemble provides fine adjustment of needle or cone tip to sample. It incorporates a clutch mechanism. Which makes reading of penetration and subsequent resetting a simple and accurate operation. The electronic timer allows the user to set up and read the fall time of the needle during testing.

The test should be performed placing the penetration cup in thermostatically controlled water, using a suitable device as our water bath with thermoregulator and immersed probe (see accessories).

- Weight approx.: 8.5 kg

ORDERING INFO

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|-------------------|---|
| 81-B0100/D | Digital standard penetrometer complete with micrometer vertical adjustment |
| 81-B0101/E | Digital electronic semi-automatic penetrometer complete with micrometer vertical adjustment and adjustable electronic timer of the fall time, according to EN 1426, ASTM D5, AASHTO T49.
230 V, 50-60 Hz, 1 ph |



DATA SHEET

ACCESSORIES

Penetrometer needles

- 81-B0113** Penetration needle 2.5 ± 0.05 g. made from hardened polished stainless steel. Univocally traceable by engraved serial number. Conforming to ASTM D5 and EN 1426. Supplied with conformity certificate.
- 81-B0113/A** Penetration needle 2.5 ± 0.05 g. made from hardened polished stainless steel. Univocally traceable by engraved serial number. Conforming to ASTM D5 and EN 1426. Supplied with conformity certificate. Set of 3.
- 81-B0113/1** Verified penetrometer needle 2.5 ± 0.5 g. Fully hardened, tempered and polished stainless steel. Conforming to ASTM D5 and EN 1426. Supplied complete with official UKAS Verification Certificate

Sample cups

- 81-B0110/A** Sample cup, dia. 55x35 mm. Set of 6 pieces
- 81-B0110/B** Sample cup, dia. 70x45 mm. Set of 6 pieces
- 81-B0110/S** Stainless steel sample cup, dia. 55x35 mm.

Mirror

- 81-B0100/1** Mirror with articulate holder. To make easy the surface contact between the needle and the sample.

Glass transfer dish

- 81-B0109** Glass transfer dish with support, 100 mm dia. x 100 mm high

Thermometers

- 82-B0100/6** IP 38 C Thermometer, range from +23 to +26°C, 0.1°C graduation
- 82-B0125/2** EN thermometer, range from +19 to +27°C range, 0.1°C graduation, type ASTM 17C
- 82-B0122/4** EN thermometer, range from -8 to +32°C range, 0.1°C graduation, type ASTM 63C

Water bath with digital thermoregulator and immersed PT100 probe

- 81-PV0102** Water bath for bitumen penetration tests, including heating controller and cooling coil, immersion temperature probe, internal support grid and connections to mains water or water chiller. Temperature range 25 to 60 ± 0.1 °C. 230 V, 50-60 Hz, 1 ph

Simple water bath

- 81-PV0102/A** Water bath for penetration test complete with internal water coil, support for specimen and water connections. To be used with external chiller series 81-PV0102/CHx

Water chiller

- 81-PV0102/CH** Water chiller, 7.5 l capacity, with electronic temperature controller with ± 0.1 °C accuracy and fluid temperature range between 5 and 30°C. Suitable for chilling penetrometer water baths or temperature controlled setting time tests. 230 V, 50-60 Hz, 1 ph
- Power consumption: 350 W
 - Overall dimensions: 415X300X420mm
 - Weight approx.: 15 kg

Standard penetration cone ASTM D217

- 81-B0115** Standard penetration cone conforming to ASTM D217 and EN 13880-2

DATA SHEET



Digital standard penetrometer complete with micrometer vertical adjustment



Digital electronic semi-automatic penetrometer complete with micrometer vertical adjustment and adjustable electronic timer of the fall time



81-B0100/D Digital standard penetrometer and 81-PV0102 thermostatically controlled digital water bath with thermoregulatory and immersion temperature probe



81-B0101/E Digital electronic semi-automatic penetrometer and 81-PV0102 digital water bath with thermoregulatory and immersion temperature probe