

DATA SHEET

Water bath for Penetration Tests



General description

This water bath is specifically designed for penetration tests of bituminous materials.

It includes heating elements whose effect is compensated by a cooling coil that can be connected to mains water, with minimum water consumption.

The digital thermoregulator, with 0.1°C accuracy, features a PT100 immersion probe which can be placed close to the test specimen or anywhere inside the bath.

This grants a highly accurate PID control, overcoming traditional systems in which the temperature is measured in an external water chiller, therefore not representing the real bath temperature.

Penetration tests are typically performed at 25°C, however special test conditions may occur, in which case the cooling coil can be connected to an external chiller (see accessories) for bath temperatures down to 5°C ± 0.1 °C.

The chiller is also useful in cases of very hot environments in which mains water temperature is higher than 25°C.

Upgrading is possible using a Water chiller

Main features

- **Great accuracy - PID control of bath temperature (not of chiller temperature)**
- **Immersion PT100 probe included**
- **Easy to set up and use**
- **Fast heating and cooling**
- **Minimum power and water consumption**
- **Chiller is not mandatory - only for low temperatures**

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Specifications

Capacity: 2.0 l

Temperature range without chiller: 25 to 60 °C

Temperature range with chiller: 5 to 60 °C

Temperature accuracy: 0.1 °C

Temperature control: PID with measuring PT100 probe immersed in the water bath

Power consumption: 200 W

Dimensions: water bath

Weight approx.: 4 Kg



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Products

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. Temperature range 25 to 60 ± 0.1 °C. 230 V, 50-60 Hz, 1 ph

81-PV0102/Z

Water bath for bitumen penetration tests, including heating controller and cooling coil, immersion temperature probe, internal support grid and connections to mains water. Temperature range 25 to 60 ± 0.1 °C. 110 V, 60 Hz, 1 ph

Accessories and consumables

81-PV0102/CH

Water chiller, with 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. 230V/50-60Hz/1ph

81-PV0102/CHZ

Water chiller, with 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. 110V/60Hz/1ph