

## DATA SHEET

### Water bath for penetration tests

#### 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

#### 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.

#### TECHNICAL 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

#### ORDERING INFO

##### Ordering Info

##### 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

**DATA SHEET**

**UPGRADING**

**81-PV0102/CH**

Water chiller, 7.5 l capacity, with electronic temperature controller with  $\pm 0.1$  °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



81-PV0102 water bath with thermoregulator



Detail of PT100 immersion probe



81-PV0102 water bath with 81-PV0103 PIVOT automatic penetrometer



81-PV0102 water bath with 81-PV0102/CH chiller and 81-PV0103 PIVOT automatic penetrometer



81-PV0102 water bath with 81-B0100/D standard penetrometer



81-PV0102/CH water chiller