

BITUMEN PENETROMETER

STANDARDS: EN 1426, ASTM D5, AASHTO T49

Used to determine the consistency of a bituminous sample under fixed conditions of load, time and temperature. The penetration is expressed in distance of tenths of millimeters vertically penetrated by a standard needle.

Penetration is measured with digital gauge 0,01 mm resolution.

The Bitumen Penetrometer is supplied with stop and release push button, automatic zero timer set, penetration needle, transfer dish and 6 penetration tins 55x35 mm dia.

Mirror with articulate holder is available to make easy the surface contact between the needle and the sample and should be ordered separately.

The other accessories should be ordered separately.

Technical Specifications:

Product Code	Product Name	Dimensions (cm)	Weight (kg)	Power Supply
HR-AS1925	Semi-Automatic Digital Bitumen Penetrometer	20x30x50	10	220 V, 50-60 Hz, 1 ph



Spare Parts & Accessories:

Product Code	Product Name	Dimensions (cm)	Weight (kg)	Standards
HR-AS1925/1	Penetration Needle	---	0,0025	EN 1426, ASTM D5, AASHTO T49
HR-AS1925/2	Transfer Dish for HR-AS1925 & HR-AS1950	---	---	---
HR-G0610	Moisture content tin	Ø 5,5 x 3,5	0,02	---
HR-G0608	Moisture content tin	Ø 7 x 4,5	0,03	---
HR-AS1925/7	Mirror with adjustable holder	---	---	---
HR-AS1925/3	One-Quarter Scale Cone and Shaft for Lubricating Grease	---	---	ASTM D1403 & ASTM D1831
HR-AS1925/4	One-Half Scale Cone and Shaft for Lubricating Grease	---	---	ASTM D1403 & ASTM D1831
HR-AS1925/5	Brass Penetrometer Cone for Lubricating Grease and Petrolatum	---	---	ASTM D 217 & ASTM D 937
HR-AS1925/6	Resilience Ball Penetration Tool	---	---	ASTM D5329

AUTOMATIC BITUMEN PENETROMETER

STANDARDS: EN 1426, ASTM D5, AASHTO T49, ISO 3997, IP 49

Used to determine the consistency of a bituminous sample under fixed conditions of load, time and temperature. Penetration is expressed in tenths of a millimeter through which the standard needle penetrates vertically.

The penetration depth of the needle is determined with electronic measuring system, which is separated from the plunger during the test, this allows the free guidance of the plunger which virtually eliminates friction during the test.

The frame with levelling screws and spirit level consists of a digital control unit with touch screen, an anodised aluminum base plate with centering guide, magnifying lens and low voltage illuminator mounted on flexible arms.

At the start of each experiment, the measuring system is automatically reset. The cone is lowered so that the tip of the cone just touches the surface of the sample by pressing up and down arrows on the screen with fast and slow motion option. In this process, magnifying glass and led lamp help the user. The penetrometer allows the cone to free fall into the sample for the specific set time interval which can be set on display by user. Free fall time can be selected between 0 - 999 seconds. Using the joystick, the needle position can be adjusted precisely with the help of the magnifying glass and ultra-bright LED lamp on the device. The test result is displayed on the digital screen. 5 tests are made and the average is taken automatically.

Needle holder can be easily disassembled and reassembled for weight calibration.



HİRA TESTING EQUIPMENT



The penetrometer is supplied with penetration needle, transfer dish and 6 penetration tins 55x35 mm dia.

Water Bath (with Cooling unit or without Cooling unit), Thermometer (IP38 or ASTM 17C or 63C) required for the test and the other accessories should be ordered separately.

Water bath dish with incorporated thermostatic coil, to be connected to the Water Bath. It keeps the temperature of the bitumen sample directly on the penetrometer, by avoiding to transfer it. Water bath dish should be ordered separately.



Technical Specifications:

Product Code	Product Name	Dimensions (cm)	Weight (kg)	Measuring Range (mm)	Resolution (mm)	Power Supply
HR-AS1950	Automatic Digital Bitumen Penetrometer	35x33x80	24	0-50	0,01	220 V, 50-60 Hz, 1 ph

Spare Parts & Accessories:

Product Code	Product Name	Dimensions (cm)	Weight (kg)	Standards
HR-AS1925/1	Penetration Needle	---	0,0025	EN 1426, ASTM D5, AASHTO T49
HR-AS1925/2	Transfer Dish for HR-AS1925 & HR-AS1950	---	---	---
HR-G0610	Moisture content tin	Ø 5,5 x 3,5	0,02	---
HR-G0608	Moisture content tin	Ø 7 x 4,5	0,03	---
HR-AS1925/7	Mirror with adjustable holder	---	---	---
HR-AS1925/3	One-Quarter Scale Cone and Shaft for Lubricating Grease	---	---	ASTM D1403 & ASTM D1831
HR-AS1925/4	One-Half Scale Cone and Shaft for Lubricating Grease	---	---	ASTM D1403 & ASTM D1831
HR-AS1925/5	Brass Penetrometer Cone for Lubricating Grease and Petrolatum	---	---	ASTM D 217 & ASTM D 937
HR-AS1925/6	Resilience Ball Penetration Tool	---	---	ASTM D5329
HR-G1500	Water Bath with Circulation System, 15 lt capacity	16x33x30	14	---
HR-G1525	Water Bath with cooling device, 15 lt capacity	63x40x60	25	---
HR-AS1950/1	Water bath dish with incorporated thermostatic coil	Ø 15,1x9	---	---
HR-G1385	IP38 Thermometer, 23 – 27 °C	3x3x30	0,1	---
HR-G1398	ASTM 17C Thermometer, 19 – 27 °C	3x3x30	0,1	ASTM 17C
HR-G1412	ASTM 63C Thermometer, -8 - (+32) °C	3x3x30	0,1	ASTM 63C