

Bending Beam Rheometer BBR

Determination of flexural creep stiffness

ASTM D6648 | AASHTO T313 | EN 14771

MAIN FEATURES

- **Durable, corrosion-resistant construction**
- **Computerized control, data acquisition and analysis**
- **PID temperature controller with digital display**
- **Two independent platinum RTDs for precise temperature control**
- **Mechanically-refrigerated cooling bath with environmentally-safe non-CFC coolant**
- **Integral LVDT and temperature compensated load cell for accurate test results**
- **Includes complete calibration kit with carrying case**
- **Includes ASTM/AASHTO-compliant specimen moulds**
- **PC and software included**

GENERAL DESCRIPTION

The Bending Beam Rheometer (BBR) test (see Figure 1) provides a measure of low temperature stiffness and relaxation properties of asphalt binders. These parameters give an indication of an asphalt binder's ability to resist low temperature cracking. - See more at: <http://www.pavementinteractive.org/article/bending-beam-rheometer/#sthash.NocVgDFH.dpuf>

The Bending Beam Rheometer (BBR) test provides a measure of low temperature stiffness and relaxation properties of asphalt binders. These parameters give an indication of an asphalt binder's ability to resist low temperature cracking.

The Bending Beam Rheometer (BBR) is engineered to perform flexural tests on asphalt binder and similar specimens per ASTM D6648 and AASHTO T313. These tests consist of a constant force being applied to a specimen in a chilled bath in order to derive specific rates of deformation at various temperatures.

The Bending Beam Rheometer (BBR) test (see Figure 1) provides a measure of low temperature stiffness and relaxation properties of asphalt binders. These parameters give an indication of an asphalt binder's ability to resist low temperature cracking. - See more at: <http://www.pavementinteractive.org/article/bending-beam-rheometer/#sthash.NocVgDFH.dpuf>

The Bending Beam Rheometer (BBR) test (see Figure 1) provides a measure of low temperature stiffness and relaxation properties of asphalt binders. These parameters give an indication of an asphalt binder's ability to resist low temperature cracking. - See more at: <http://www.pavementinteractive.org/article/bending-beam-rheometer/#sthash.NocVgDFH.dpuf>

The Bending Beam Rheometer (BBR) System consists of a fluid bath base unit, a three-point bending test apparatus which is easily removed from the base unit for specimen loading and unloading, an external cooling unit with temperature controller, and a calibration hardware kit with carrying case. The system includes a PC and the testing software.

The **Bending Beam Rheometer BBR** can be used as part of your **Superpave performance based testing** program.

DATA SHEET

TECHNICAL SPECIFICATIONS

Models	81-PV5902 81-PV5904
Conforming to Standard	ASTM D6648 AASHTO T313 EN 14771
Machine control by	PC (included) with dedicated software
Load Frame	Integral stainless steel frictionless construction
Loading shaft	In-line stainless steel with blunt point
Test Load	Variable test range from 0 to 200 g standard. System maintains required test load to within ± 0.5 g throughout the test cycle
Test Cycle Times	Cycle times for pre-load, recovery, and test load are completely operator- adjustable
Load cell	500 g (temperature-compensated)
Mechanical overload protection	Standard
Test weights	Calibrated and traceable
Sample supports	25 mm (0.98 in.) diameter stainless steel spaced 101.6 mm (4.00 in.) apart
LVDT displacement transducers	6.35 mm (0.25 in.) calibrated range to provide 2 μ m resolution throughout testing and verification range
Testing Software Features	Large on-screen display of load, displacement and bath temperature provides ease of setup and operation. Real-time displacement, loading, and temperature graphs are displayed during the test cycle and can be re-scaled as needed for easy viewing
Cooling Unit	Included (non-CFC refrigerant)
Recommended Cooling Bath fluid	Non-flammable ethylene glycol mixture
Operating temperature	Ambient to -40° C (-40°F)
Temperature Measurement	Platinum RTD
Compressed air requirement	0.34 MPa (50 psi) clean, dry air supply required
Weight	approx. 115 kg

ORDERING INFO

81-PV5902
 Bending Beam Rheometer (BBR)

DATA SHEET

230 V, 50-60 Hz, 1 ph.

81-PV5904

As above but 115V, 50-60 Hz, 1 ph.

ACCESSORIES

81-PV059/1

Extra aluminium beam mould. Set of five.

81-PV059/2

Set of 36 plastic strips for BBR specimen moulds.

Air Compressor

86-D2015

Laboratory air compression, 10 bar max. pressure, 8 bar for continuous use. 50 liters capacity. 230V, 50Hz, 1ph.

86-D2015/Y

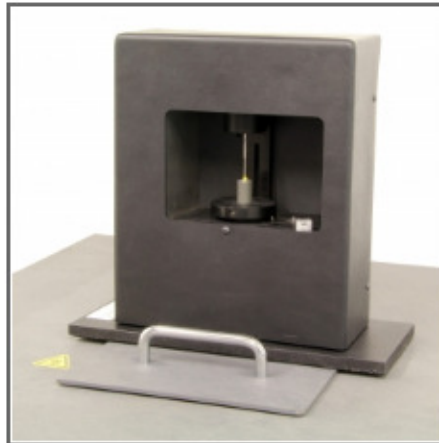
Laboratory air compression, 10 bar max. pressure, 8 bar for continuous use. 50 liters capacity. 220V, 60Hz, 1ph.

86-D2015/Z

Laboratory air compression, 10 bar max. pressure, 8 bar for continuous use. 50 liters capacity. 110V, 60Hz, 1ph.



Bending Beam Rheometer (BBR)
81-PV5902



Detail of Bending Beam Rheometer



Calibration hardware kit with
carrying case