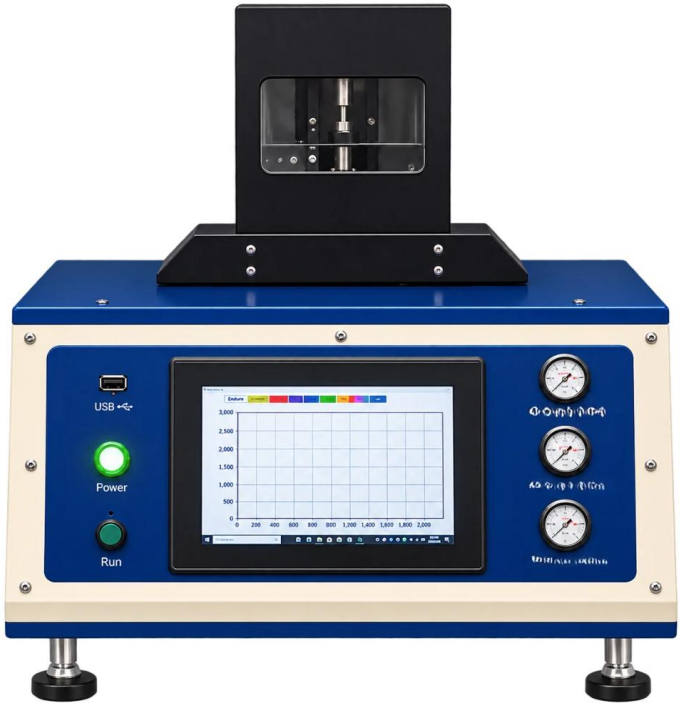
AZA LAB / MATERIAL TESTING EQUIPMENT

ASPHALT BENDING BEAM RHEOMETER (BBR)

AZA1183 | TECHNICAL DATASHEET



JTG E20 T0627 • AASHTO T313 • ASTM D6648 • EN 14771

PRODUCT OVERVIEW

The AZA1183 Asphalt Bending Beam Rheometer (BBR) is designed to determine the low-temperature flexural creep stiffness of asphalt binder specimens under a controlled load in a temperature-regulated liquid bath.

The system measures specimen deflection and applied force to characterize binder stiffness and creep response. It is intended for asphalt binder evaluation and pavement-material research under the listed test methods.

KEY CAPABILITIES

- Displacement sensor: 0–10 mm range, 1 µm resolution
- Force sensor: 0–4900 mN range, 1 mN resolution
- Temperature sensor: −50 °C to room temperature; ±0.1 °C accuracy
- Liquid bath: −40 °C to room temperature; ±0.1 °C control accuracy
- Creep stiffness measurement range: 20–1000 MPa
- Single-specimen testing with 127 × 12.7 × 6.35 mm mold
- USB data interface and 5 L stirred liquid bath



APPLICATIONS

Low-temperature creep stiffness evaluation of asphalt binders for pavement engineering, binder grading and research laboratories.

TECHNICAL SPECIFICATIONS

01 / MEASUREMENT & TEST SPECIFICATIONS

PARAMETER	SPECIFICATION
Model	AZA1183 — Asphalt Bending Beam Rheometer (BBR)
Test standards	JTG E20 T0627 / AASHTO T313 / ASTM D6648 / EN 14771
Displacement sensor range	0–10 mm
Displacement sensor resolution	1 µm
Force sensor range	0–4900 mN
Force sensor resolution	1 mN
Temperature sensor range	−50 °C to room temperature
Temperature sensor accuracy	±0.1 °C
Test mold size	127 × 12.7 × 6.35 mm
Specimen support top radius	3 ±0.3 mm
Loading axis contact	Spherical; radius 6.3 ±1.3 mm
Number of specimens	1
Creep stiffness range	20–1000 MPa
Data interface	USB
Liquid bath temperature	−40 °C to room temperature
Liquid bath control accuracy	±0.1 °C
Liquid bath volume / stirring	5 L / 25 rpm
Main unit dimensions	610 × 610 × 620 mm
Host weight	80 kg
Host power supply	AC 220 V, 1 kW
Power supply box	AC 220 V, 1.8 kW
Refrigerator power supply	AC 220 V, 3 kW

02 / LIQUID BATH & REFRIGERATION

• Liquid bath operating range: −40 °C to room temperature

• Temperature control accuracy: ±0.1 °C

• Bath volume: 5 L

• Stirring speed: 25 rpm.

03 / POWER & PHYSICAL DETAILS

• Main unit: 610 × 610 × 620 mm; 80 kg

• Host: AC 220 V, 1 kW

• Power supply box: AC 220 V, 1.8 kW

• Refrigerator: AC 220 V, 3 kW.

CONTACT

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