

Low Temperature Asphalt Penetrometer

This low temperature penetrometer determines the penetration resistance of bituminous materials. The instrument features a temperature-controlled bath, a precision penetration needle, and a digital display for accurate measurement.



Overview

Precision Low Temperature Testing

The Low Temperature Penetrometer is a specialized instrument engineered for determining the needle penetration of petroleum asphalt and bituminous materials. Designed in accordance with rigorous national and industry standards, it ensures accurate consistency and hardness assessment, which is critical for pavement design and material selection. Beyond highway engineering, its versatile design allows for reliable testing of solid granules, powders, colloids, creams, and various food products.

Technical Specifications

Power Supply	AC220V±10%, 50 Hz
Total Power Consumption	1000 W

Constant Temperature Bath

Bath Capacity	8.5 L
Temperature Range	5.0 to 100.0
Temperature Accuracy	0.1 °C
Circulated Water Quantity	5 L/min
Pump Head	1 m

Penetrometer Performance

Timing Selection	5 s, 60 s
Timing Error	±0.1 s
Penetration Accuracy	±1 penetration
Maximum Penetration	600
Standard Needle Weight	2.5 g

Compliance

Standards Compliance

- GB/T4509 (Needle Penetration of Petroleum Asphalt)
- JTJ052 (Test Methods of Bitumen and Bituminous Mixture for Highway Engineering)