AZA LAB / MATERIAL TESTING EQUIPMENT

ROTATING BITUMINOUS ROLLING THIN-FILM OVEN

AZA1181 | TECHNICAL DATASHEET

ASTM D2872 • AASHTO T240

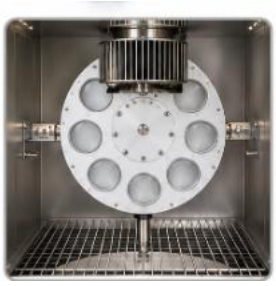


PRODUCT OVERVIEW

The AZA1181 Rotating Bituminous Rolling Thin-Film Oven is designed for short-term aging of asphalt binders under controlled heat and airflow. The apparatus rotates eight sample bottles in a heated chamber while delivering regulated air, supporting laboratory assessment of binder aging characteristics.

The system incorporates electronic airflow monitoring, process trend visualization, data logging and reporting features to support repeatable laboratory workflows.

KEY CAPABILITIES



- German flow-recording sensor in place of a manual flow meter (supplier-described)
- Separate chamber and controller/monitor arrangement to reduce heat exposure of control electronics
- Temperature–time and airflow–time trend displays
- Real-time temperature and airflow deviation monitoring during aging
- Data logging every 5 seconds; USB export in Excel-compatible format
- Automatic printing of process data after test completion
- Illuminated chamber with large heat-resistant viewing window

APPLICATIONS

Short-term asphalt binder aging according to the referenced rolling thin-film oven methods; process records may support subsequent PAV and BBS testing workflows. PAV and BBS tests are performed using separate equipment.

TECHNICAL SPECIFICATIONS

01 / PERFORMANCE & OPERATING REQUIREMENTS

PARAMETER	SPECIFICATION
Test standards	ASTM D2872 / AASHTO T240
Test temperature	163 °C
Temperature control accuracy	±0.5 °C
Airflow	4,000 mL/min ± 200 mL/min
Annular rack rotational speed	15 r/min ± 0.2 r/min
Sample bottle capacity	8 bottles
Airflow measurement	Electronic flow-recording sensor (German origin, supplier-described)
Data recording interval	Every 5 seconds
Data output	USB export in Excel-compatible format; automatic printing
Electrical supply	AC 220 V, 50 Hz, 2 kW
Overall dimensions	650 × 860 × 820 mm
Approximate weight	80 kg

02 / CONSTRUCTION & PROCESS MONITORING

Air nozzles at the chamber bottom and a fan at the top promote uniform internal temperature. The chamber includes illumination and a large high-temperature-resistant glass viewing window. The controller is physically separated from the heated chamber. The system displays temperature–time and flow–time curves and records deviations for process review.

03 / DATA MANAGEMENT

Five-second process records • USB export • End-of-test automatic printing • Temperature/airflow trend monitoring • Pressure–temperature error relationship records described by supplier for reference during subsequent PAV/BBS workflows (scope and sensor arrangement to be confirmed).

CONTACT

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