Rolling Thin Film Oven (RTFOT)

LT-AS0107 | Binder ageing under heat and air

PID control • Vertical rotating carousel • Adjustable air flow



200 °C

UPPER OPERATING TEMPERATURE

15 rpm

CAROUSEL ROTATION SPEED

EN 12607-1 • ASTM D2872 • AASHTO T240

LT-AS0107

Photographs and Components

Digital controls, rotating carousel, observation door and air connection

RTFOT assesses short-term ageing of bituminous binders under controlled heat and air. A moving thin film inside rotating glass bottles allows laboratories to examine ageing associated with asphalt mixing and laying.

DIGITAL PID CONTROL

The operator panel provides temperature control and test time settings.

ROTATING CAROUSEL

The vertical carousel rotates the glass sample bottles at 15 rpm.



OBSERVATION DOOR

The double-glazed front door allows observation without opening the chamber.

AIR FLOW

The flowmeter and inlet allow adjustment of air supplied by an external compressor.



Digital temperature control and motor / fan / lamp switches



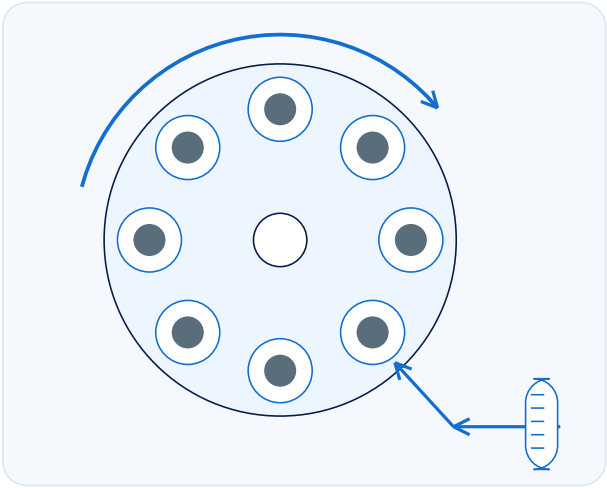
Vertical carousel and glass sample bottles

LT-AS0107

Heat, Air and a Moving Thin Film

Prepare • Rotate and age • Recover binder • Compare

ROTATING BOTTLES + HEAT + CONTROLLED AIR



ROTATION: 15 rpm

AIR: ADJUSTED THROUGH THE FLOWMETER

SPECIMEN: MOVING THIN FILM INSIDE BOTTLE

Transfer aged binder to subsequent tests

REPRESENTATIVE RTFOT PRINCIPLE • NOT TO SCALE

Prepare the Specimen

Clean the glass bottles. Measure the specimen as specified and place bottles in the carousel.

Apply Heat and Air

Set temperature, duration and air flow. Age specimens on the rotating carousel.

Evaluate the Results

Recover the aged binder. Compare required properties with the original specimen.

Carousel rotation moves the binder inside each bottle and forms a thin film. The heated chamber and controlled air supply expose this film throughout the test. Recovered binder is used in subsequent measurements required by the method to assess short-term ageing.

Temperature and Test Conditions

The operating range extends from ambient temperature to 200 °C. Standard RTFOT procedures use approximately 163 °C; select exact conditions according to the applicable method.

Set duration and air flow as specified by the standard. Monitor the panel display, carousel rotation and air supply during the procedure.

Bottles and External Air Supply

The unit is supplied with 8 glass sample bottles measuring 64 × 140 mm. LT-AS0107/1 identifies this bottle type.

The LT-G0225 compressor, rated at 8 bar / 25 L, is supplied separately. Compressor pressure is distinct from the test air flow; adjust the flowmeter according to the method.

LT-AS0107

Technical Specifications and Accessories

LT-AS0107 | RTFOT chamber, sample bottle and compressor

Technical Specification	Value / Description
Product Code	LT-AS0107
Temperature Range	Ambient temperature - 200 °C
Carousel Rotation Speed	15 rpm • Vertical carousel
Temperature and Time Control	Digital PID control • Time setting
Air Supply	External compressor inlet • Flowmeter
Internal Chamber	304 stainless steel
Exterior / Door	Powder-coated steel • Double-glazed door
External Dimensions / Weight	62 × 62 × 91 cm • 65 kg
Power Supply	220 V • 50-60 Hz • 1 phase
Supplied Bottles	8 bottles • 64 × 140 mm
Relevant Methods	EN 12607-1 • ASTM D2872 • AASHTO T240

Accessory Code	Description
LT-AS0107/1	Glass sample bottle • 64 × 140 mm
LT-G0225	Compressor • 8 bar / 25 L • Supplied separately

Record Test Conditions Together

Record specimen identification, temperature, duration and air flow. Recover and identify the aged binder for subsequent tests in accordance with the applicable method.

Short-Term Ageing Workflow

01
Prepare
Measure specimens and load the glass bottles.

02
Set
Select temperature, duration and air flow.

03
Age
Rotate the carousel and apply heat and air.

04
Evaluate
Recover binder and perform required tests.

Product Page | liyatest.com.tr/en/urun/rolling-thin-film-oven-rtfot/