

ADVANCED PAVEMENTS TESTING

Rolling Thin Film Oven (RTFO)

Short-term Binder Aging



Safe and Repeatable Results

Standards: EN 12607-1 | ASTM D2872 | AASHTO T240

Rolling Thin Film Ovens measure the effect of heat and air on a moving film of semi-solid bituminous materials. It simulates the short-term aging of asphalt binders, typically happening during asphalt mixing and paving operations.

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RTFO at a glance

Clarity of test parameters, including temperature/time graph, timer and air flow, displayed on a 7" touch-screen color control panel.

Also suitable for special tests (e.g. on polymer-modified binders) with maximum 200°C.



Safe to use thanks to the automatic over-temperature and door switches.

Trusted results: the new thermo-control unit accurately sets the oven at the right temperature.

> Easy access to carousel for easy positioning of samples.

Internal light for clear viewing and alarm should the door accidentally opens.

The door locking system allows the operator to open the door easily, even when carrying samples.

Firmware



Real-time temperature/time graph

rofile name:	PROFILE 3
mperature Set Point:	163.0 °C
emperature MAX:	200.0 °C
emperature bandwidth:	1.0 °C
Carriagel Set Point:	15.0 RPM
arriage bandwidth:	0.4 RPM
ir Flow Set Point:	4000 ml/min
Air Flow bandwidth:	400 ml/min

Test profile set-up



Technical Specifications

Construction: Full stainless steel, interior and exterior

Temperature range: from +50 to +200°C (default 163°C) ± 0.5°C

Air flow: adjustable from 0.1 to 10'000 ml/min, flow readout integrated into the control panel

External connections:

- USB connection for USB pen drive connection, allowing to upload or save test profiles (including temperature, flow meter and carousel speed setpoints and PID settings)
- Serial connection allowing remote upload and download test profiles from PC

Safety features:

- Automatic over-temperature switch
- Door switch
- Internal light
- Open door alert
- Completed test phase alert
- Magnetothermic switch

Power: 3000W

External dimensions: 750 x 750 x 900 mm (W \times D \times H)

Weight: approx. 110 kg

Ordering Information

81-PV1632

RTFOT Asphalt oven for Rolling Thin-Film Oven Test. ASTM version. 230V/50Hz/1ph.

- For measuring the effect of heat and air on a moving film of semisolid bituminous materials.
- Conforming to ASTM D2872 and AASHTO T240.
- Capacitive touchscreen display with 7" color panel, time/ temperature graph, timer function, digital air flow indicator.
- Test temperature between 50 and 200°C.
- Complete with ASTM 13C thermometer and 8 glass containers.

81-PV1633

Same as above, but 220V/60Hz/1ph.

81-PV1634

Same as above, but 110V/60Hz/1ph.

81-PV1642

RTFOT Asphalt oven for Rolling Thin-Film Oven Test. EN version. 230V/50Hz/1ph.

- For measuring the effect of heat and air on a moving film of semisolid bituminous materials.
- Conforming to EN 12607-1.
- Capacitive touchscreen display with 7" color panel, time/ temperature graph, timer function, digital air flow indicator.
- Test temperature between 50 and 200°C.
- Complete with ASTM 13C thermometer and 8 glass containers.

Accessories

81-PV0161/12

Diaphragm pump for 81-PV16XX RTOFT oven 110-230V/50-60Hz/1Ph

81-PV0161/13 Scraper for RTFOT bottle

81-PV0161/14

Metal rack for holding/ cooling RTFOT bottles

81-PV0161/15

RTFOT bottle tong

Spares

81-PV0161/10MF

Loss on heat thermometer IP 47C ASTM 13C, range +155 to +170°C, mercury free with alternative liquid

81-PV0161/10

Spare glass container



IPC Global Customer Care

IPC Global is the Advanced Pavement Testing Division of CONTROLS. As one of the longest established manufacturing companies in the world of Construction Materials Testing solutions, we are dedicated to supplying high quality, accurate, affordable, easy to use systems.

As a valued customer of CONTROLS, you will receive continuous, expert support and advice for your IPC Global equipment. Furthermore, we can offer full installation and training in the correct operation of your equipment.

For support from our expert Customer Care Team, contact your local CONTROLS office / distributor or email customercare@controls-group.com.

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