

Determination of the resistance to hardening under the influence of heat and air

**RTFOT METHOD:
ROLLING THIN-FILM OVEN TEST**

**Effect of heat
and air on a moving film of bitumen**

Two versions available: the ASTM/AASH-TO/CNR (codes 81-B0161, B0161/Z, B0161/Y) and the EN (code 81-B0161/A). The only difference is the inside dimension of the testing chamber.

STANDARD

EN 12607-1, ASTM D 2872,
AASHTO T240

■ **81-B0161**

Bitumen oven for rolling thin-film oven test. ASTM version.
230 V, 50 Hz, 1 ph.

■ **81-B0161/Z**

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

■ **81-B0161/Y**

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

■ **81-B0161/A**

Bitumen oven for rolling thin-film oven test. EN version.
230 V, 50 Hz, 1 ph.

General description and specifications

Used for measuring the effect of heat and air on a moving film of semisolid bituminous materials. Internal chamber made from stainless steel, insulation with fibreglass or similar, external frame made from engine-turned stainless steel, door with symmetrically located window. Complete with thermometer ASTM 13C and No. 8 heat resistant glass container, dia. 64x140 mm.

Power: 1300 W

Outside dimensions:
600x600x900 mm

Weight approx.: 50 kg

note

The oven must be connected to a suitable low flow and pressure air supply.

Main features

- **Safety features:**

- over temperature automatic switch
- automatic switch that switches off the oven in case of accidental opening of the door during the test
- pilot lamp and alarm for door open with fan still running
- magnetothermic switch
- 24 V low voltage door opening controls
- High quality stainless steel structure,

internal and external engine-turned finishing

- Thermal insulation with high quality material
- Door with double glass window
- Armoured heating resistance to safety requirement
- Flow meter (Rotameter), with air flow regulator, metal construction
- Digital electronic thermoregulator operating in PID mode



Detail of external stainless lining: "linen patterned" resistant to scratches and shocks

81-B0161/A – 81-B0161

Accessories

- ✔ **81-B0161/1** Diaphragm pump. 230 V, 50 Hz, 1 ph.
- ✔ **81-B0161/1Z** Diaphragm pump. 110 V, 60 Hz, 1 ph.
- ✔ **81-B0161/1Y** Diaphragm pump. 220 V, 60 Hz, 1 ph. Dual stage, free air displacement 10 l/min, ultimate vacuum 8 mbar abs. Complete with needle valve. Power 120 W, weight approx. 9.3 kg

Spare parts

- ✔ **81-B0161/10** Spare glass container
- ✔ **82-B0160/10** ASTM 13C thermometer +155 to +170°C, 0.5°C div.



81-B0161 Detail