

**TFOT METHOD: THIN-FILM OVEN TEST**

**Effect of heat and air and loss on heating of oil and bituminous compounds**

**STANDARD**

**EN 12607-2 – EN 13303** ASTM D6, D1754 – AASHTO T47, T179 – BS 2000 – CNR No. 50 – UNE 7110 – NF T66-011

**81-B0160/C**

**TFOT bitumen oven.**  
230 V, 50 Hz, 1 ph.

**General description and specifications**

Used for determining the loss in mass (exclusive of water) of oil and bituminous and the effect of heat and air on a film of semisolid bituminous material.

- Internal chamber made from stainless steel
- Insulation with fibreglass or similar
- External frame made from stove enameled steel
- Temperature control by contact thermometer
- Door with double panel window.

The TFOT oven has to be completed with the accessory to perform the test conforming the ASTM D6, BS 2000, and NF T66-011 standards (see 81-B0160/1) or the other test conforming to EN 12607-2 and ASTM D1754. (See 81-B0160/2)

**Power:** 1300 W

**Internal dimensions:** 330x330x330 mm

**Outside dimensions:**  
500x500x900 mm

**Weight approx.:** 35 kg



81-B0160/C

**Accessories**

- a) For EN 13303 ASTM D6, BS 2000, and NF T66-011  
 ▽ **81-B0160/1** Rotating shelf with 9 containers 55 mm dia. x 35 mm
- b) For EN 12607-2 and ASTM D1754  
 ▽ **81-B0160/2** Rotating shelf 140 mm dia. x 9.5 mm deep
- c) **Thermometer for both versions**  
 ▽ **82-B0160/10** Loss on heat thermometer ASTM 13 C, +155 to 170°C, 0.5°C div.

**RFT METHOD: ROTATING FLASK TEST**

**STANDARD**

**EN 12607-3**

**75-B0165**

**Rotary evaporation apparatus.**  
230 V, 50 Hz, 1 ph.

**RFT method. Test description**

An amount of 100 g of bituminous binder is introduced into the 1000 ml rotating flask of the rotary evaporator. At the test temperature of 165°C a flow of air at ambient temperature is introduced into the rotating flask containing the sample. The air flow hardens the sample and the harde-

ning effect is evaluated by measuring penetration, softening point and dynamic viscosity on the treated bituminous binder sample.

**General description**

The rotary evaporator is equipped with a distillation flask, a variable speed motor capable of rotating the distillation flask at a rate adjustable from 20 to 270 r.p.m., condenser, solvent recovery flask, and heated oil bath. The angle of the distillation flask from the horizontal to the bath is set at approximately 15°. Supplied complete with 1000 ml distillation flask.

**Weight approx.:** 27 kg



75-B0165

**Accessories**

- ▽ **81-B0161/1** Diaphragm pump. 230 V, 50 Hz, 1 ph.
- ▽ **75-B0165/1** Flow control device and flowmeter to maintain the air flow rate up to 500 ml/min