

RADIANT FLOORING PANEL

FEATURES

The EN ISO 9239-1 Radiant Flooring Panel test is the cornerstone of the flooring materials reaction to fire tests in the Euroclass system. The test measures the spread of flame of the sample, under thermal exposure, using a radiant heat ignition source. The thermal exposure is that of a fire growing in the room of origin that through a door opening, radiates onto the floorings in an adjacent room or corridor. It is relevant to classification of the flooring material into classes A_{2,FL}, B_{FL}, C_{FL} and D_{FL}.

The Radiant Flooring Panel equipment consists of:

- A test chamber consisting of a support frame covered with polished stainless steel panels. The resulting test chamber is insulated with calcium silicate insulation board and is provided with an temperature resistant observation window. The stainless steel sample support assembly is mounted on a sliding platform to allow safe and easy loading of the test sample.
- A ceramic porous radiant panel complete with mass flow instrumentation with fine adjustment for the gas and air supplies. The control system regulates the flow rates to ensure a constant air gas mixture, which is very important in achieving a constant heat flux profile during the test. Safety instrumentation is also included.
- Chamber and Exhaust system thermocouples included.
- Dummy calibration specimen with holder, calibrated heat flux meter and mounting.
- A calibrated Optical Pyrometer to read surface temperature of radiant panel (option).
- White Light attenuation system for smoke density measurement, according to DIN50055.
- A propane pilot burner assembly.
- Exhaust hood and extraction duct, complete with fan.



SPECIFICATIONS

BS EN 13501-1 2007 + A1 2009

EN ISO 9239-1

ASTM E648

DIN 4102; Part 14

RADIANT FLOORING PANEL

TECHNICAL DATA

Electrical:

100V - 230V AC 50Hz – 150 VA.

Ambient Temperature:

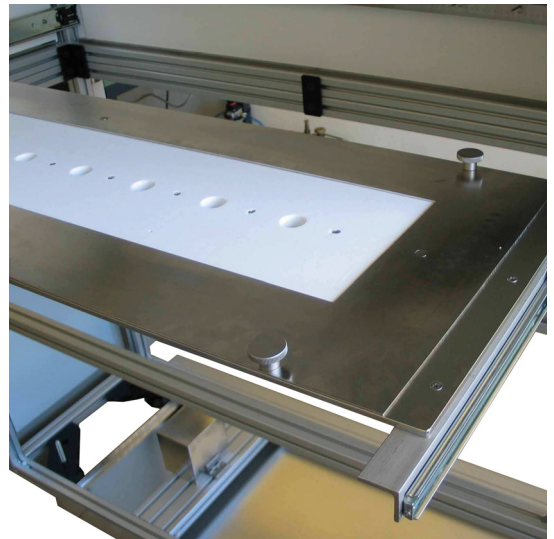
Operating 10°C to 35°C

Dimensions:

2400mm (W) x 2300mm x (H) x 700mm (D).

Weight:

400 kg



SERVICES REQUIRED

Gas Supply:

The preferred fuel gas used in the test is a mixture of air & propane.

Propane: The flow needs to be capable of delivering 1kg/hour at a minimum pressure of 3 Bar with a minimum purity of 95%.

Clean & Dry Air: The flow needs to be capable of delivering 350nl/min at a nominal pressure of 7 Bar.

This is required to obtain flame stability for testing.

Water Supply:

Water supply with drain or recirculation system to cool the heat flux meter (1l/min).

Extraction:

Suitable exhaust system, de-coupled from the exhaust stack, with an air velocity of approximately 2.5 +/- 0.2 m/s for the stack with the panel turned off, dummy specimen in place and access door closed. An axial flow fan with a variable extraction rate up to a maximum of 2500 m³/h is suitable.