

## Radiant Flooring Panel Apparatus

### Application

- Building Materials
- Rail
- Automotive Interior
- Other

### Standards:

ASTM E648— Standard Test Method for Critical Radiant Flux of Floor- Covering System Using a Radiant Heat Energy Source

ASTM E 970— Standard Test Method for Critical Radiant Flux of Exposed at Attic Flooring Insulation Using a Radiant Heat Energy Source

NFPA 253— Standard Method of Test for Critical Radiant Flux of Floor Covering System Using a Radiant Heat Energy Source (National Fire Code. Vol.6)

ISO 9239-1— Reaction to Fire Tests for Flooring- Part 1: Determination of Burning Behavior Using a Radiant Source

ISO 9239-2— Reaction to Fire Tests for Flooring- Part 2: Determination of Flame Spread at a Hat Flux Level of 25kW/m<sup>2</sup>

### FEATURE

1. The resulting test chamber is insulated with calcium silicate insulation board and is provided with a temperature resistant observation window.
2. The stainless steel sample support assembly is mounted on a sliding platform to allow safe and easy loading of the test sample.
3. The radiant heat is applied by means of a gas-fuelled panel, inclined at 30°, and directed at a horizontally mounted floor covering system specimen.
4. The radiant panel generates a radiant energy flux distribution ranging from a nominal maximum of 10.9 kW/m<sup>2</sup> to a minimum of 1.1 kW/m<sup>2</sup>.
5. Dummy calibration specimen with holder, calibrated heat flux meter and mounting.
6. The distance burned until flame-out is reached and converted, by calibration, into an equivalent critical radiant flux, in kW/m<sup>2</sup>.
7. Heat Flux Meter: Range : 0 ~ 50 kw/m<sup>2</sup>; Surface emissivity : $\epsilon=0.95\pm 0.05$
8. A smoke measuring system, according to DIN 50055, is mounted on a separate frame at the exhaust stack.
9. Control Rack for convenience in use, allowing observation of the apparatus and controls during equipment set-up and calibration.
10. Automatic ignition of the radiant panel and safety cut-out.

11. Automatic moving T type ignition burner
12. Stainless steel hood with smoke measurement ports.

