

THERMOMETRY

DIN EN ISO 9239-1

EN ISO 9239-1



SCOPE

Determination of the burning behavior of floorings using a radiant heat source.

PRINCIPLE

The results of this test procedure form the basis for the assessment of an aspect of the fire behavior of floor coverings. The heat radiation applied to the specimen by the radiator simulates the likely degree of stress that will be generated on a floor on its top in case of fire. The specimen is placed in a horizontal position under a gas-heated radiator and exposed to a defined heat flow. After ignition by a pilot flame, the horizontal propagation of the flame front along the length of the specimen is registered. The amount of smoke is recorded via the light attenuation in the exhaust duct during the test.

FEATURES

- ♦ Control, gas regulation, measurement data acquisition and evaluation of the tests are handled by software.
- ♦ The tests can be output in a protocol with the calculations of the standard.
- ♦ The device is equipped with a positioning aid for the calibration sensor.
- ♦ The pilot burner is pneumatically moved into the test position and automatically retracted after the set test time has elapsed.
- ♦ Calibration of the smoke density measurement is software guided.
- ♦ Wire-knit burner prevents burn-through of the radiant heater.

COMPONENTS

Test chamber with frame and radiant heater
Exhaust duct with exhaust hood
Pilot burner with pneumatic adjustment unit
Specimen holder, calibration board and backing board
Control cabinet with power supply, amplifier, signal-converter, emergency-stop device and valve control
Smoke density measuring device with measuring light emitter, measuring light receiver and control unit
Thermocouples for test chamber, exhaust duct and pilot flame protection
Electronic mass flow controller propane and compressed air for radiant heater, burner and purge air
Anemometer with permanently fixed probe
Heat flux sensor (Schmidt-Boelter): measuring range 0 – 20 kW/m²
Pyrometer: measuring range 300 – 900°C
Software: DIN EN ISO 9239-1, MCC DAQ, MS Windows 10
Interfaces: 2 x USB- interface with multifunctional data acquisition module and 12-bit resolution

DIMENSIONS

Width x depth x height : 1913 x 2483 x 1568 mm*
Weight: approx. 350 kg*

SUPPLIES

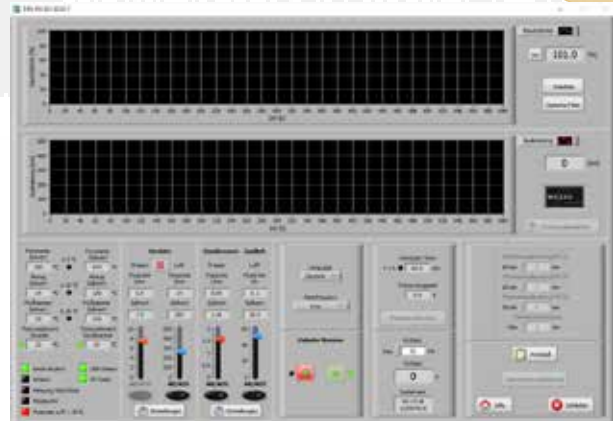
Electric current 230 VAC 50/60 Hz, 150 VA
Propane, approx. 7,5 l/min
Compressed air, approx. 300 l/min
Water

TO BE PROVIDED BY THE CUSTOMER

Waste water drain, sink sufficient
Exhaust air connection, air velocity (2.5 ± 0.2) m/s, adjustable

SPATIAL REQUIREMENTS

Exhaust air connection DN 300
Installation area (l x h x d) approx. 3000 x 2500 x 3000 mm



* Our products are constantly being developed. For this reason the actual dimensions may vary. © 01/2023