# THERMOMETRY

# **TPP – DIN EN ISO 9151**

**EN ISO 9151** 



#### **APPLICATION**

The device is used to determine the heat transmission of flame exposure to protective clothing against heat and flames. A classification of materials can be made by comparing the determined heat transfer indices, which serve as a reference for the relative heat transfer under the specified test conditions.

#### PRINCIPI F

A specimen is placed in a specimen holder. A calorimeter is put directly on the inner surface of the specimen. The specimen is then exposed to a heat flux of  $80\pm2$  kW/m² generated by a propane gas burner. The time required to increase the temperature of the specimen by 24 °C is measured.

#### FEATURES

The device offers an automated calibration and test sequence. Measurement data are automatically recorded and output in a measurement file.

Burner and test sequence are controlled by the software. The burner is ignited electrically, and additionally equipped with a flame protection device.

The specimen holder is moved with a fast running linear drive with max. 200 mm/s.

Calorimeter cooling is provided by a fan.

#### **SCOPE OF DELIVERY**

Test frame, control unit, laptop inclusive pre-installed software, 2 calorimeters, 2 specimen holders, operating manual english

## **DIMMENSIONS**

Dimmensions (Width x depth x height)
Test frame 680 x 610 x 740 mm\*
Control unit 471 x 410 x 153 mm\*
Weight approx. 50 kg\*

#### **SUPPLIES**

Propane gas: Purity  $\geq$  95 %, Pressure reducer, Inlet pressure 1 bar

Electric voltage 100 - 230 VAC 50/60 Hz, 150 VA

#### **SPECIMEN SIZE**

140 x 140 mm

## SPECIMEN HOLDER TRAVEL

Linear drive, electrical; spindle drive, velocity 20 - 200 mm/s

#### **BURNER**

Meker-Burner, Diameter outlet 40 mm, Needle valve, adjustable air intake, electrical ignition unit

#### FLOW CONTROLLER & VALVE GAS

Flow controller electronical Solenoid valve

# **SENSORS**

Heat flux (calorimeter, thermocouple Type-T), Gas flow, Ambient temperature, Humidity

#### SOFTWARE

Operating system Windows 10 Software: MCC DAQ & DIN EN ISO 9151

#### **SAFETY**

Encasement with safety hinge switch; Burner flame protection by thermocouple

#### TO BE PROVIDED BY THE CUSTOMER

Laboratory fume cupboard for flue gas discharge; Sufficient test room volume

\* Our products are constantly being further developed. For this reason, the actual dimensions may vary.

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