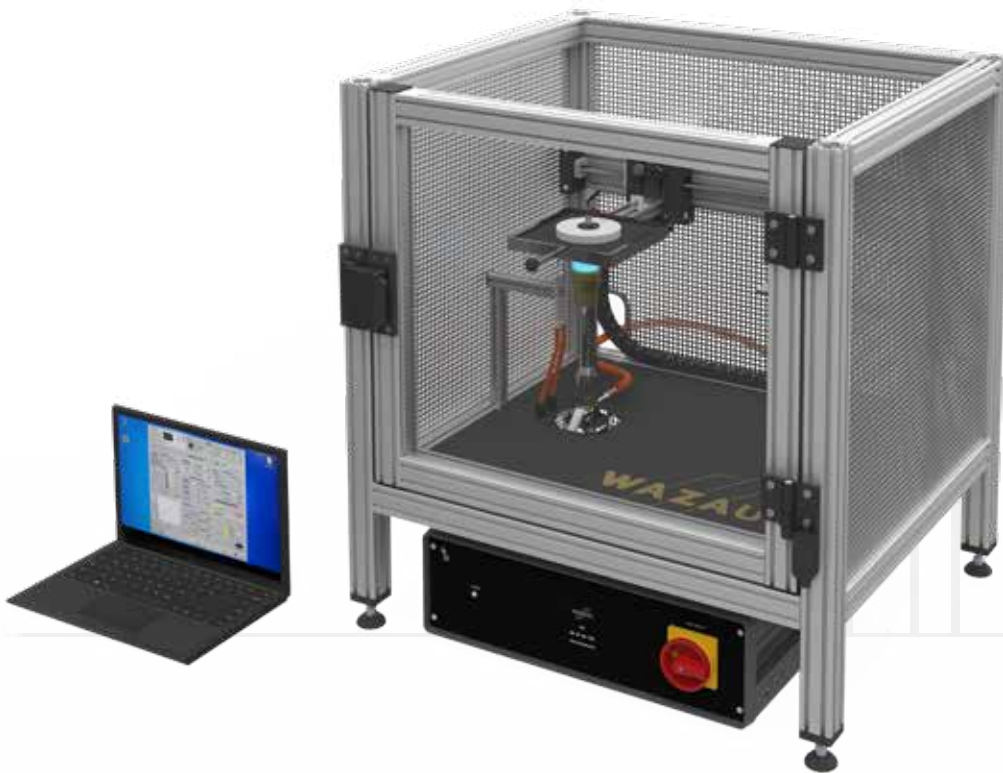


TPP – DIN EN ISO 9151

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. Air gaps are avoided by compressing the specimen.

PRINCIPLE

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 $80 \pm 2 \text{ kW/m}^2$ generated by a propane gas burner. The time required to increase the temperature of the specimen by $24 \text{ }^\circ\text{C}$ is measured.

FEATURES

The device offers an automated calibration and test sequence. Only the insertion of the specimen is done by hand. The measurement data are automatically recorded and output in a measurement file.

Burner and test sequence are controlled by the device 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

Dimensions (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

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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 electrical

Solenoid valve

SENSORS

Heat flux (calorimeter, thermocouple Type-T)

Gas flow

Thermocouple Type K (Flame protection)

Position switch linear drive

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

AMBIENT REQUIREMENTS

Test room temperature 18 - 28 °C

Humidity 15 - 80 %

Maximum permissible air flow

at the specimen 0.2 m/s

* Our products are constantly being further developed. For this reason, the actual dimensions may vary. © 02/2023

