

PCT:TWS - Radiant Heat Test Apparatus

According to EN 366 and ISO 6942:2002

To evaluate the behaviour of materials used for heat protective clothing, when exposed to radiant heat.

Complies fully with the specifications, as described in the standards ISO 366 and ISO 6942:2002, method A and B, and carries the CE-mark.



Test method

The tests are carried out on representative samples of single or multi layer textile or other materials, for heat-protective clothing. The tests can also be performed on combinations of various materials to simulate the wear of different garments over each other.

Method A is used for visual assessment of changes in the material when exposed to radiant heat. Method B, is performed to determine the level of protection of the material. The materials can be tested according, either one or both methods.

The equipment is divided in two components. The test unit, with the integrated heat source and switch panel, and a box with the resistors. The test station at the front includes a pneumatically operated, water cooled panel, which opens and closes the opening for heat exposure.

The switch panel is mounted at the rear of the equipment. The resistor box is separately placed next to the test unit.

The sample holders (A and B) and calorimeter are mounted on a plate which fits in a slot in front of the opening for heat exposure. The heat source can be moved back and forth, for adjustment of the flux value.

Specifications

- Housing : Perforated Stainless Steel
- Front panel (testing area) : Non-flammable sheet in aluminium frame with a pneumatic vertical operated Hatch. The hatch and the front panel are equipped with water cooling.
- Heat source : 6 off silicon carbide heating rods.
- Sample holders : Type A and B. Aluminium frame mounted on carrier plate with tensioning weight and 1 set of sample clamps.
- Temperature meter : Copper constantan thermocouple integrated in sample holder B.
- Recording of test results : Data converter for thermocouple to PC. Including basic software, recording of time and temperature.
OPTIONAL - Software for calibration of the flux value, recording of the test values and automatic calculation, storage and processing of the measurement data. (PC not included)

Dimensions W x D x H (mm)

- Test unit : approx. 1500(incl. switch panel) x 470 x 740 (opened hatch)
- Resistor box : 490 x 395 x 260

Weights (kg)

- Test unit : approx. 95 kg.
- Resistor box : approx. 10 kg.

Required connections

- Power supply : 2 supplies of fase + 0 – 240V/18A (2 groups of 3 heating rods, each)
- Compressed air : 6 to 8 Bar – oil free
- Water cooling : Tap water supply and drain.