

Protective clothing against heat and flame.
Test method: Determination of the heat transmission on exposure to flame

Reference number: EN 367

Status: European Standard - Test method

Scope: This standard specifies a test method for comparing the heat transmission through materials or material assemblies used in protective clothing.

TEST PRINCIPLE :

An horizontally oriented test specimen is partially restrained from moving and subjected to an incident heat flux of 80 kW/m² from the flame of a gas burner placed beneath. The heat passing through the specimen is measured by means of a small copper calorimeter on top and in contact with the specimen.

The time (s) for the temperature to rise 24 +/- 0.2 °C is recorded. The mean result of three specimens is calculated as the heat transfer index.

Expression of results:

- The time (s) for the temperature to rise 24 +/- 0.2°C is recorded. The mean result of three specimens is calculated as the heat transfer index (HTI₂₄)
- The time (s) for the temperature to rise 12 +/- 0,2°C is recorded if requested (HTI₁₂)

Comments:

- incident heat flux density: amount of energy incident per unit time on the exposed face of the specimen, expressed in kilowatts per square meter (kW/m²)
- heat transfer index (flame): whole number calculated from the mean time in seconds to achieve a temperature rise of 24+/-0,2°C when testing by this method using a copper disc of mass 18+/-0,05 g and a starting temperature of 25+/-5°C
- calorimeter: instrument to measure the heat energy absorbed by it; a calorimeter has a well defined heat capacity, i.e. the amount of energy can be calculated from the temperature rise in the calorimeter.