

TE-15 Footwear Heat Insulation Tester

Purpose:

Apparatus is intended for testing the insulation against heat of protective footwear when is exposed to hot plate in sandbath

Apparatus is made according to the requirements and apply for the tests according to the following standards:

EN 20344 c. 5.12 Personal protective equipment – Test methods for footwear – Determination of insulation against heat

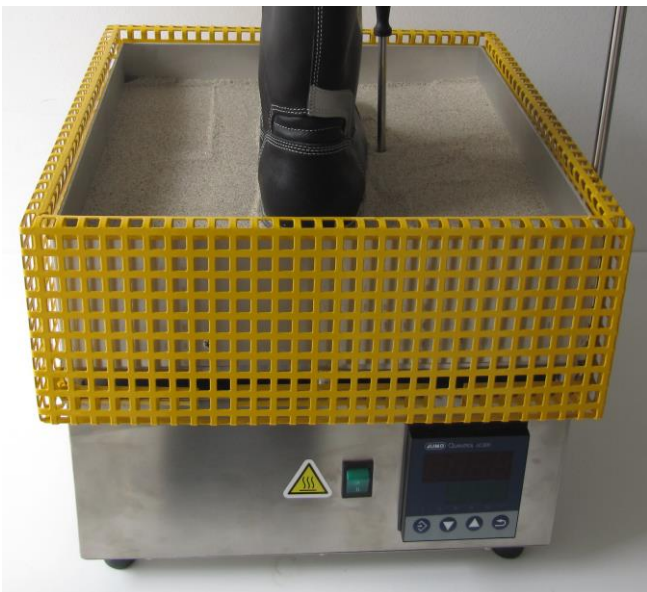
Description of the device:

The device consists of metal housing with protective frame, hot plate and electronic control unit with display. It is designed to operate at temperatures up to 300 °C – testing is anticipated and carried out at the temperature of 150 °C or 250 °C. Size of the bath which holding the sand is 400 mm x 400 mm with height of 100 mm. Volume of sand that shall be in the bath is 5.000 cm³ with a granular size of 0,3 mm to 1,0 mm. Regulation of temperature is controlled on two displays that showing default and achieved temperature with an accuracy of ± 0,1 °C.

Dimension: (L) 440 x (W) 450 x (H) 320 mm;

Weight: 20 kg;

Power supply: 230 V ~ 50 Hz; **Power:** 2500 W



Operating principle:

Turn on the device and heat up to test temperature allowing to stabilize hot plate and sand bath at the test temperature for a minimum of 120 min. In conditioned footwear place thermal transfer medium (stainless steel balls with 5 mm diameter and total mass of (4.000 ± 40) g) and temperature probe soldered to a copper disc (2 ± 0,1) mm thick and (15 ± 1) mm diameter. Put the footwear in a sand bath moving it forward and backward in order to get the best possible contact between the footwear and the hot plate then ensure surface of the sand is homogenously flat. Continue the test until the appropriate times given in the requirement of the product standard have been reached. Remove the footwear and the steel balls for inspection and note if there is signs of serious damage that affects the functionality of the footwear.