

TDP T3 – Fire Testing Device for Roofs

Measurement method	Determination the performance of roofs to external fire exposure – Test 3 with exposure to incendiary devices, wind and additional radiant heat according to DIN CEN/TS 1187
Setup	■ Base frame, consists of a base frame and a slide system for the radiant heater panel ■ Sample holder ■ Separate, mobile frame for wind generator and gas hose routing ■ Mobile control unit
Heating unit	■ Radiant panel, framed by stainless steel; outer dimensions (W x H) 750 mm x 750 mm ■ Consisting of four individual square surface radiant heater elements, each 300 mm x 300 mm, fed with propane ■ Equipped with four ignition electrodes
Incendiary device*	■ Grids made from wood fiber insulation boards; (W x D x H) 55 mm x 55 mm x 32 mm; nailed ■ Soaked in n-heptane ■ To be lit with a gas burner
Wind generator	■ Radial fan Elektror Type S-LP 215/92 with frequency converter ■ Height-adjustable fan box, stainless steel with 1.0 m wide nozzle outlet and guide plate; with adjustable angle
Sample holder	■ Inclined sample frame, stainless steel; (W x H) 1500 mm x 3000 mm ■ Mounted on sample carrier trolley ■ Manually, hydraulically angle-adjustable sample frame for stepless adjustment of the inclination angle of the sample (0-50 °)
Measuring and control unit	■ Consisting of 3 units ■ Gas mixing system; generate fuel gas/air mixtures; gas supply of radiant panel ■ Electrical control cabinet/gas control panel with touch screen for control of radiant panel and ignition electrodes ■ Electronics box for controlling the wind generator
Sample dimensions	(W x H) 1200 x 3000 mm
Software	integrated touch panel HMISTU855; Touch panel screen 5 "7 color; analogue; for automatic and manual control of all individual components
Instrument dimensions	■ Measuring and control unit (W x D x H) 1000 x 1000 x 1950 mm³ ■ T3 (W x D x H) 1800 x 5500 x 3000 mm³ ■ Weight: approx. 1700 kg
Power supply*	■ Input: 3x 400V 50Hz (3,5A/1,5kVA) ■ Supply: 5x 2.5mm² (16A)
Operating materials*	■ Water: for cooling of the Schmidt-Boelter heat flux meter ■ n-heptane: for soaking of the incendiary devices
Gas supply*	Propane; required pressure: 300 mbar

* to be provided by the user