Critical Radiant Flux Testing

EN ISO 9239-1

This test method is used to measure the critical radiant flux of horizontally-mounted floor covering systems exposed to a flaming ignition source in a graded radiant heat environment, within a test chamber. It can also be used to measure this same critical radiant flux for exposed attic floor cellulose insulation.

The European Union is using this test method for fire classification of flooring products, throughout European Member States.

The radiant heat is applied by means of a gas-fuelled panel, inclined at 30º, and directed at a horizontally mounted floor covering system specimen. The radiant panel generates a radiant energy flux distribution ranging from a nominal maximum of 10.9 kW/m² to a minimum of 1.1 kW/m².

A small stainless steel pilot burner assists in specimen ignition.

The distance burned until flame-out is reached and converted, by calibration, into an equivalent critical radiant flux, in kW/m².