Protective clothing against radiant heat may be used in a wide range of applications. It may be required to protect workers against a low intensity heat for a long period of time, alternatively the intensity may be rated as medium and high, but the time period will be adjusted accordingly.

The WIRA Radiant Heat Test Apparatus may be used to test the material in two ways. In the first test the specimen is subjected to a level of thermal radiation. In order to represent the most severe conditions for the material, very little heat is conducted away from the sample. Changes in appearance are recorded.

In the second method a calori-meter is placed behind the sample, and so conducts heat away from the back of the material. The temperature rise is recorded against time and the heat transfer levels are determined.

The radiation source consists of silicon carbide heating rods. The test frame is constructed from a non-combustible board, and is easily adjusted to set the required heat flux density.

A water-cooled protective screen protects the specimen from the heat source until the test begins.

Standards: EN366:1993

In the metal industries, the protective clothing is expected to protect against heat and molten metal. The WIRA Molten Test Apparatus subjects the sample to a controlled application of molten metal.

The small quantity of molten metal is poured onto the test specimen that is supported at an angle. The PVC film is then inspected for damage. The test is repeated using greater or smaller amounts of molten metal until minimum damage to the film is observed.