ISO 14116:2008

ISO 14116:2008 specifies the performance requirements for the limited flame spread properties of materials, material assemblies and protective clothing in order to reduce the possibility of the clothing burning and thereby itself constituting a hazard. Additional requirements for clothing are also specified.

Protective clothing complying with this ISO 14116:2008 is intended to protect workers against occasional and brief contact with small igniting flames, in circumstances where there is no significant heat hazard and without presence of another type of heat. When protection against heat hazards is necessary in addition to protection against limited spread flammability, then standards, such as ISO 11612, are more appropriate.

A classification system is given for materials, material assemblies and garments which are tested according to ISO 15025:2000, Procedure A.

EN ISO 11612

A1 B1 C1 D0 E1 F1

Protective clothing for industrial workers exposed to heat, excluding welding and fire fighting according to European norm EN ISO 11612. The performance levels A1, B1, C1, D0, E1 and F1 are applicable. A means that the garments fulfil the flame spread test; B indicates the performance for convective heat, where 1 is the lowest level applicable for limited risks; C means the performance for radiant heat, where 1 is the lowest level applicable for limited risk, D means the performance for molten aluminium where 1 is the lowest level applicable for limited risk, E means the performance for molten iron splash, where 1 is the lowest level applicable for limited risk and F means the performance for contact heat, where 1 is the lowest level applicable for limited risk This means that the wearer is protected against brief contacts with a flame as well (as to the level indicated) against convective and radiant heat and against a small amount of molten metal splashes.

ISO 11611:2007

ISO 11611:2007 specifies minimum basic safety requirements and test methods for protective clothing including hoods, aprons, sleeves and gaiters that are designed to protect the wearer's body including head (hoods) and feet (gaiters) and that are to be worn during welding and allied processes with comparable risks. For the protection of the wearer's head and feet, ISO 11611:2007 is only applicable to hoods and gaiters. ISO 11611:2007 does not cover requirements for hand protection.

This type of protective clothing is intended to protect the wearer against spatter (small splashes of molten metal), short contact time with flame, radiant heat from the arc, and minimizes the possibility of electrical shock by short-term, accidental contact with live electrical conductors at voltages up to approximately 100 V d.c. in normal conditions of welding. Sweat, soiling or other contaminants can affect the level of protection provided against short-term accidental contact with live electric conductors at these voltages.

ISO 11611:2007 specifies two classes with specific performance requirements, i.e. Class 1 being the lower level and Class 2 the higher level.

- Class 1 is protection against less hazardous welding techniques and situations, causing lower levels of spatter and radiant heat.
- Class 2 is protection against more hazardous welding techniques and situations, causing higher levels of spatter and radiant heat.

For adequate overall protection against the risks to which welders are likely to be exposed, personal protective equipment (PPE) covered by other standards should additionally be worn to protect the head, face, hands and feet.