

# **EN Standards**



## **EN ISO 11612 – Protection against heat and flame**

This standard describes the performance requirements for clothing made of fabrics that protects the wearer's body, except the hands, from heat and/or fire. The standard is divided into six indices: A1-A2, B1-B3, C1-C4, D1-D3, E1-E3 and F1-F3. The higher the value, the better the protection.



## **EN ISO 11611 – Protective clothing for use in welding and allied processes**

The standard specifies the minimum requirements for protective clothing worn during welding and related processes. A distinction is made between two classes: class 1 and class 2, whereby class 2 corresponds to the higher protection class and therefore offers better protection.



## **EN 1149 – Protective clothing – electrostatic properties**

The standard specifies the test methods for clothing with electrostatic dissipative properties in order to prevent electrostatic charging of persons and ignitable discharges. There are two main parts to this standard:

### **Part 3: Test methods for measurement of charge decay**

This standard describes protective clothing in which the material surface is tested for its electrostatic discharge behaviour.

### **Part 5: Material performance and design requirements**

This standard describes the requirements for materials and constructions of electrostatic dissipative protective clothing used as part of a fully earthed system, e.g. by wearing appropriate footwear.



## **EN 61482-2 - Live working - Protective clothing against the thermal hazards of an electric arc**

Arc protection clothing is flame- and heat-resistant clothing for people who are exposed to electric arcs. It protects against the effects of a defined electrical arc fault and prevents further burning. There are two test procedures for certification in accordance with EN 61482-2:

In method 1, EN IEC 61482-1-1, the open arc test (arc rating), the fabric and the garment are tested to determine the ATPV/EBT value of the clothing.

In method 2, EN 61482-1-2, the box test, the arc rating of the fabric and garment is determined using a simulated arc. There are 2 classes, with class 2 being the higher protection class.



### **EN 13034 – Protective clothing against liquid chemicals**

The standard specifies the performance requirements for chemical protective clothing with limited protective performance against liquid chemicals (Type 6 and Type PB [6]). The clothing offers limited protection against the effects of liquid aerosols, sprays and light splashes of chemicals. Re-impregnation is required after each wash to maintain the repellent properties against chemicals.



### **EN 343 – Protection against rain**

EN 343 specifies values for clothing that is suitable for protection against rain. There are three values next to the symbol. The upper value indicates the waterproofness and the middle value the breathability of the product. Both values are divided into classes 1-4, with 4 indicating the highest class. The lowest value is a voluntary test in which the finished sewn product is tested under the influence of rain from above. R indicates that the product has been tested, X indicates that it has not been tested.



### **EN ISO 20471 – High visibility clothing**

The EN ISO 20471 standard defines the test procedures and requirements for protective clothing for people who carry out their work in environments that require increased visibility. The class designation (number next to the symbol) describes the extent to which the clothing offers the wearer protection. Class 3 is the highest possible class.



### **EN 17353 – Enhanced visibility equipment for medium risk situations**

Clothing that has been certified in accordance with DIN EN 17353 ensures that the wearer has increased visibility. In this respect, DIN EN 17353 is similar to EN ISO 20471, but the key difference is that it is intended for use in medium-risk situations. Within this standard, there is a distinction between two types. Type 'A' increases the wearer's visibility exclusively in daylight. Type 'B', on the other hand, only increases visibility in darkness or twilight. A combination of type 'A' and type 'B' is also possible. This is then referred to as type 'AB'. The result is a combination that increases the wearer's visibility both during the day and in the dark, albeit to a lesser extent than with EN ISO 20471.



### **EN 510 – Specification for protective clothing for use where there is a risk of entanglement with moving parts**

This clothing is protective clothing that minimises the risk of entanglement or entrapment by moving parts when the wearer is working on or near machinery or equipment with hazardous movements. Special features of the clothing are therefore: no externally accessible pockets on the jackets, no sewn pleats, concealed fasteners, generally close-fitting.