

EN Garment certified to standards for heat and flame, thermal hazards of an electric arc and electrostatic properties.

Standards applied by Devold of Norway AS - Molværsvegen 12
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NB See in the CE label inside the garment to confirm which of the following standards the garment is certified according to. The CE label states also washing instructions, fabric content, size and stylenumber.

EN information
To draw attention to the compulsory user information that must be enclosed with all certified garments.

Consult operating instructions

CE mark
These garments comply with the requirements of Regulation (EU) 2016/425.

EN ISO 13688:2013 (formerly EN 340:2004)
Protective clothing - General requirements



EN ISO 14116: 2015. Protection against heat and flame.
Limited flame spread index:

Index 1 (flame spread, flaming debris and afterglow properties)

Index 2 (as index 1 and included hole formation properties)

Index 3 (as index 2 and included afterflame properties)

Materials or clothing that are only approved according to Index 1 must not come into contact with skin during use. If protective garments are Index 1, they must be used over Index 2, Index 3 or above EN ISO 11612 certified garments.

To provide full protection/solid protective clothing, it is decisive that the shirt and pants of flame retardant fabrics are approved according to EN ISO 11612. The garment is not designed to protect against conductive heat, radiant heat, liquid metal and similar hazards.



EN ISO 11612:2008/2015 A, B, C, D (E & F)
Protective clothing to protect against heat and flame.
A = Limited flame spread requirement.

A1: Surface ignition. A2: Edge ignition.

B = The fabric meet level by flame contact. Level B1: 4-10 sec. B2: 10-20 sec.
B3: Over 20 second.

C = The fabric meet level by radiant heat. Level C1: 7-20 sec. C2: 20-50 sec.
C3: Over 50-95 sec. C4: Over 95 second.

D = The fabric meet level by test of liquid aluminium. Level D1: 100-200 gram.
D2: 200-350 gram. D3 over 350 gram.

Devold of Norway has no garments certified in code letter E & F.



IEC 61482-2:2009
Live working-Protective clothing against thermal hazards of an electric arc. Part 1-2: Test method-method 2: Determination of arc protection class of material and clothing by using a constrained and directed arc (box test).

Garments do not protect against electric shock hazards, only against the thermal effects of electric arc.

- No garments like shirts, undergarments or underwear made of, for example, polyamide, polyester or acryl fibers which melt under arc exposures, should be used.

Test method EN 61482-1-1:2009 Open arc test method Arc thermal performance value (ATPV) -the incident energy on a material or a multilayer system of materials that results in a 50% probability that sufficient heat transfer through the tested specimen is predicted to cause the onset of a second degree skin burn injury based on the Stoll curve, without breakdown.

Breakopen threshold energy -EBT50

-incident energy on a fabric or material that results in a 50 % probability that sufficient heat transfer through the tested specimen is predicted to cause the tested specimen to break open

Test method: EN 61482-1-2:2007 "Box test"

Class 1 [4kA]
Class 2 [7kA]
Voltage: 400 V

Arc duration: 500 ms
Frequency: 50 Hz



EN 1149-5:2008/2018
Protective clothing - Electrostatic properties -
Part 5: Material performance and design requirements



EN 13911:2004/2017
Protective clothing for fire fighters-fire hood.
Against heat and flame and thermal effects for electric arc.

Important information for Heat, Flame and Thermal approved garments

- Flame-retardant material is used to stop flames from spreading. However, heat can spread through the garment, resulting in burns. Flame retardant garments offer protection against heat under a certain period of time.
- Do Not use clothing that is not flame retardant together with flame retardant garments, the protection will be reduced.
- The limited flame spread properties will be reduced if the protective clothing is contaminated with flammable materials.
- Before use, the garment must be checked to ensure that it is complete, that it fits and that the wearer knows how to remove it.
- The garment should be fastened and closed when worn.
- Any repairs to the garment should be done with same fabric, appropriate thread and accessories.

Important information for Electrostatic approved garments

- The person wearing the electrostatic dissipative protective clothing shall be properly earthed. The resistance between the person's skin and earth shall be less than 108 Ω, e.g. by wearing adequate footwear on dissipative or conductive floors;
- Electrostatic dissipative protective clothing shall not be open or removed whilst in presence of flammable or explosive atmospheres or while handling flammable or ex-plosive substances;
- Electrostatic dissipative protective clothing is intended to be worn in Zones 1,2,20,21 and 22 (see EN60079-10-1 [7] and EN 60079-10-2 [8]) in which the minimum ignition energy of any explosive atmosphere is not less than 0,016 mJ ;
- Electrostatic dissipative protective clothing shall not be used in oxygen enrich atmospheres, or in Zone 0 (see EN60079-10-1 [7]) without prior approval of the responsible safety engineer;
- The electrostatic dissipative performance of the electrostatic dissipative protective clothing can be affected by wear and tear, laundering and possible contamination;
- Electrostatic dissipative protective clothing shall be worn in such a way that it per-manently covers all non-complying materials during normal use (including bending movements)
- Modification of the design, including removal/changes of logos of the clothing should under no circumstances take place.
- Hoods should be of antistatic material and should be worn or otherwise completely removed prior to entering potentially explosive areas.
- To earth the end user via the body, there shall be a skin contact.

Important information for Hoods designed for firefighters

- The hood is used by firefighters when responding to a fire alarm. The hood is one size only.
- The opening for face has been adapted to suit the use of a mask, and the length of the hood is such that it provides sufficient cover of the throat, neck and shoulder area.
- The hood style and material have been approved in accordance with EN 13911 - Requirements and test methods for fire hoods for firefighters.
- IEC 61482-2 - Live working - Protective clothing against the thermal hazards of an electric arc - Part 1-2: Test methods 2: Determination of arc protection class of material and clothing by using a constrained and directed arc (box test) and EN ISO11612 - Protective clothing - Clothing to protect against heat and flame.

Finnish Institute of Occupational Health (FIOH), Topeliuksenkatu 41 b, FIN-00250 Helsinki, Finland, notified body 0403, has EC/EU type-examined this product.

You will find the EU declaration of conformity on our website www.devold.com/protection-certificates