

SH-360, Shield for 360 protection against thermal hazard of an electric arc

PHOTOS



Product compliant with the requirements of following standards:

EN ISO 11611:2015 "Protective clothing for use in welding and allied processes" in terms of points: 6.2; 6.3 (tear strength – class 2); 6.6; 6.7.1, 6.7.2.2, 6.7.2.3 and 6.7.3.3 (limited flame spread – A1+A2); 6.8 (resistance to small splashes of molten metal – class 1); 6.9 (radiant heat – class 1); 6.10.

EN ISO 11612:2015 "Protective clothing. Clothing to protect against heat and flame. Minimum performance requirements" in terms of points: 4.3 (only for fasteners), 6.2.1; 6.3.1, 6.3.2.2, 6.3.2.3 and 6.3.3.3 (limited flame spread – A1+A2), 6.4, 6.5.1, 6.5.2.1, 7.2 (convective heat – B1), 7.3 (radiant heat – C1), 7.6 (contact heat – F1).

EN 61482-2:2020 "Live working. Protective clothing against the thermal hazards of an electric arc. Part 2: Requirements" in terms of points: 4.2 (only for fasteners and fabrics), 4.3.1; 4.3.2; 4.3.3; 4.3.3.1, 4.3.3.3 (limited flame spread – A1+A2); 4.3.4.1; 4.3.4.2; 4.3.5; 4.4.1 and 4.4.3 (protection against the thermal effects of an electric arc APC2: for the fabric set only).

GS-ET-29:2019-06 „Principles of testing and certification of face shields for electrical work" – tests were performed for class 2 (APC 2) according to point 4.2. An additional calorimeter was placed on the head model at the ear location.

EN IEC 61482-1-1:2019 „Live working – Protective clothing against the thermal hazards of an electric arc – Part 1-1: Test methods – Method 1: Determination of the arc rating (ELIM, ATPV and/or EBT) of clothing materials and of protective clothing using an open arc" – for the fabric set.

EN 61482-1-2:2014 „Live working – Protective clothing against the thermal hazards of an electric arc – Part 1-2: Test methods – Method 2: Determination of arc protection class of material and clothing by using a constrained and directed arc (box test)" – for the fabric set.

IEC 62819:2023 „Live working – Eye, face and head protectors against the effects of electric arc – Performance requirements and test methods" in terms of points 4.2 (design requirements), 4.4.6 (other requirements concerning textile components), and 5.2.4 (testing of protectors providing 360° protection).

Protection against the heat and flame effect: A1+A2, B1, C1, F1

Resistance to small splashes of molten metal: class 1

Protection against the thermal effect of an electric arc:

ELIM 25 Cal/cm²,  full protection 360° (open arc)

APC 2 (box test)

Weight: 75 g

Size: universal

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CHARACTERISTICS

The shield is made of two layers of flame-retardant fabrics in navy blue color. The shield has Velcro fasteners for fastening the shield under the chin and when lifting them to fasten on the helmet. On the inside of the shield there are hi-vis yellow fabric straps for routing the helmet's chin strap and for placing markings. Additionally, the bright color of these straps signals from a great distance that the user has their shield raised. The fabrics used are tear-resistant and colorfast. They have fire-resistant properties and are resistant to small splashes of molten metal. The Velcro and threads used in this product also have fire-retardant properties.

The shield comes in a single universal size.

Parameters for the fabric set:

- according to EN IEC 61482-1-1:2019 – ELIM 25 Cal/cm², ATPV 30 Cal/cm², EBT 41 Cal/cm²,
- according to EN 61482-1-2: 2014 – APC 2,
- in accordance with EN ISO 11611:2015 – limited flame spread – A1+A2, resistance to small splashes of molten metal – Class 1, radiant heat – Class 1,
- in accordance with EN ISO 11612:2015 – limited flame spread – A1+A2, convective heat – B1, radiant heat – C1, contact heat – F1.

APPLICATION

The SH-360 shield is designed to protect the user's face, ears, and neck against thermal hazards caused by electric arcs (APC2 – Box Test and ELIM 25 Cal/cm² – open arc). The shield has been designed and manufactured to be compatible with SECRA helmets (models H058E00, H058E0, H058E1, and H058E2) and the integrated ARC-E40HT face shield.

The 360-degree shield provides full protection only when used in combination with SECRA-type helmets (models H058E00, H058E0, H058E1, and H058E2) and the integrated ARC-E40HT face shield.

The shield can also be used in situations involving exposure to heat and flames.

The shield is not intended for use in welding processes; it meets the requirements of selected points of the EN ISO 11611:2015 standard, i.e., 6.2, 6.3, 6.6, 6.7.1, 6.7.2.2, 6.7.2.3, 6.7.3.3, 6.8, 6.9 and 6.10.

STORAGE AND MAINTENANCE

Store and transport the shields in a manner that prevents damage. Keep shields away from heat sources. Protect against mechanical damage, against sunlight, moisture, exhaust gases, etc. Do not place shields directly next to room windows or car windows. Storage at (20 ± 15) °C is recommended.

The shields should be cleaned after each use, which allows for thorough control and prevents irritation of the user's skin. Light soiling should only be cleaned with soap and water. Dry thoroughly after washing. If the shield is very dirty, it is recommended to wash it in water not exceeding 60 °C with the addition of soap. After washing, dry thoroughly in a dryer at a maximum temperature of 40 °C. The shields retain their properties for up to 5 wash cycles; after this time, they must be withdrawn from use.

EXAMINATION

Before starting work, the shield should be inspected. Visual inspection includes checking:

- no visible defects of the shield,
- correct attachment of shield to the helmet,

In the event of mechanical damage (abrasion, tears, etc.) or chemical damage (strong discoloration, fading, etc.), faulty attachment and in the event of doubt as to the optimal level of protection, the arc flash shield should be withdrawn from use.

If the shield becomes damp, dry them thoroughly before use.

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For check and periodic inspection to be carried out in according to table.

	CHECK	PERIODIC INSPECITON
Who	Manager of team	Supervision
When	Before each use	Once a year
How	Visually (visual inspection)	Visually (visual inspection)

**Unless instructions say otherwise*