FR UTILITY OVERGLOVE

PE-810

FEATURES

+ Designed to fit as an overglove for electrical rubber gauntlets
+ This preserves the integrity and extends the life of the rubber gloves
+ Tested to HRC level 4 (40 cal/m²) according to ASTM F2675
+ Cut level B according to EN388:2016
+ FR High quality goatskin palm for excellent dexterity and durability
+ FR Meta Aramid fabric for back of hand for FR and heat resistance
+ FR wrist closure to keep glove secure on wrist
+ Sizes M to 2XL

ENTIRE GLOVE IS FR AND ARC RESISTANT

PERFORMANCE STANDARDS

EN388:2016 — 4 X 4 3 B

EN407 — 4 1 3 2 4 X

ASTM F2675 — CAT-4 — CAL-40

EXPLANATION OF ASTM F2675 AND EN407 TESTS:

ARC TEST - ASTM F2675 / F2675M-13

Arch flash testing is relevant for any worker potentially exposed to an electric arc generating a heat flux of greater than 2 cal/cm^2. Anyone with exposure to electrical hazards must have arc rate PPE available, as mandated by OSHA. The standard test method for determining arc ratings of hand protective products for electrical arc flash protection is ASTM F2675. Specialised laboratories are required for arc testing due to the extreme nature of arc flash events. This test is used to determine the heat transfer response through gloves when exposed to the thermal energy from an electric arc. In this test, a glove is placed on a holder which has a sensor that provides heat transmission data to the laboratory. 15 pairs of gloves are required and tested at various levels. The incident energy which passes through the glove is measured and compared to the Stoll curce to determine a level of survivalbe burn. In any case in which the Stoll criteria has not been met but the fabric begins to crack open or display holes of a certain size, this point becomes the arc rating. The ATPV (arc thermal performance value) or EBT (breakopen threshold energy) are functional equivalents. The lowest of these two points is designated as the "Arc Rating" of the glove.

NFPA 70e Hazard Risk Categories	
Hazard Risk Categories	**cal/cm^2**
Level 1	4 cal/cm^2
Level 2	8 cal/cm^2
Level 3	25 cal/cm^2
Level 4	40 cal/cm^2

EXPLANATION OF EN407 TESTS AND PERFORMANCE LEVELS

a b c d e f

a. Resistance to flammability (performance level 0 - 4)
b. Contact heat resistance (performance level 0 - 4)
c. Convective heat resistance (performance level 0 - 4)
d. Radiant heat resistance (performance level 0 - 4)
e. Resistance to small splashes of molten metal (performance level 0 - 4)
f. Resistance to large splashes of molten metal (performance level 0 - 4)

The higher the performance level, the better the protection. "X" indicates the test was not performed

The nature and degree of protection is shown by a pictogram followed by a series of six performance levels, relating to specific protective qualities. The higher the number, the better the test result. "X" indicates the test was not performed. The following is tested:

a Resistance to flammability

The glove's material (palm) is stretched and lit with a gas flame. The flame is held against the material for 15 seconds. After the gas flame is distinguished, the length of time is measured for how long the material either glows or burns.

b Resistance to contact heat

The glove's material is exposed to temperatures between +100°C and +500°C. The length of time is then measured for how long it takes the material on the inside of the glove to increase by 10°C from the starting temperature (approx. 25°C). 15 seconds is the minimum accepted length of time for approval. For example: to be marked with class 2, the glove's inside material must manage 250°C heat for 15 seconds before the material exceeds 35°C.

c Resistance to convective heat

The amount of time is measured for the heat from a gas flame (80Kw/kvm) to increase the temperature of the glove's inside material by 24°C.

4 Resistance to radiant heat

The glove's material is stretched in front of a heat source with an effect of 20-40 kw/kvm. The average time is measured for heat penetration of 2.5 kw/kvm.

5 Resistance to small splashes of molten metal

The test is based on the total number of drops of molten metal required to increase the temperature by 40°C between the inside of the glove and the skin.

6 Resistance to large splashes of molten metal

Simulated skin is attached to the inside of the glove material. Molten metal is then poured over the glove material. The total number of grams is measured of how much molten metal is required to damage the simulated skin.

Performance level	1	2	3	4
a. Burning behaviour - After flare time	<20s	<10s	<3s	<2s
a. Burning behaviour - After glow time	no requir	<120s	<25s	<5s
b. Contact heat - Contact temperature	100°C	250°C	350°C	500°C
b. Contact heat - threshold time	>15s	>15s	>15s	>15s
c. Convective heat (heat transfer delay)	>4 s	>7 s	>10 s	>18 s
d. Radiant heat (heattransfer delay)	>7 s	>20 s	>50 s	>95 s
e. Small drops molten metal (#drops)	>10 s	>15 s	>25 s	>35 s
f. Large quantity molten metal (mass)	30 g	60 g	120 g	200 g