

ELLGARD® Aramid Heat Resistant Gloves

The ELLGARD® Aramid aluminised backed glove is designed to be worn in environments where there are large amounts of radiant heat and contact heat. The woven aramid palm provides the highest contact heat performance of this style of glove and the highest cut resistance Level 5.

Features

- PR720 Aluminised Preox or AR530 Aluminised Aramid back for radiant heat and molten metal splash protection.
- Woven aramid palm for best contact heat and cut resistance protection.
- T-GARD® N260 aramid felt lining for additional thermal protection.
- Wear seams are welded for additional protection and all seams are sewn with heat resistant Kevlar® thread for extra durability.
- Length 406mm.



Product Code	Size	Material
APG16WSK	LRG	PR720 Aluminised Preox
AKG16WSK	LRG	AR530 Aluminised Aramid



Performance Data

Abrasion	Blade Cut	Tear	Puncture	BURNING (WHOLE GLOVE)	CONTACT HEAT (PALM)	CONTACT HEAT	RADIANT HEAT	SMALL	LARGE
				Seconds	Seconds	Seconds	Seconds	Drops	Drops
3	5	4	3	4	3	3	4	3	X
				After flame: 0 After glow: 0 No damage	100°C: 109 250°C: 27 350°C: 20 500°C: 13	Back: 12 Palm: 24	279	Palm: 32 (Level 3) Back: >45 (Level 4)	X

Standards for Protective Gloves

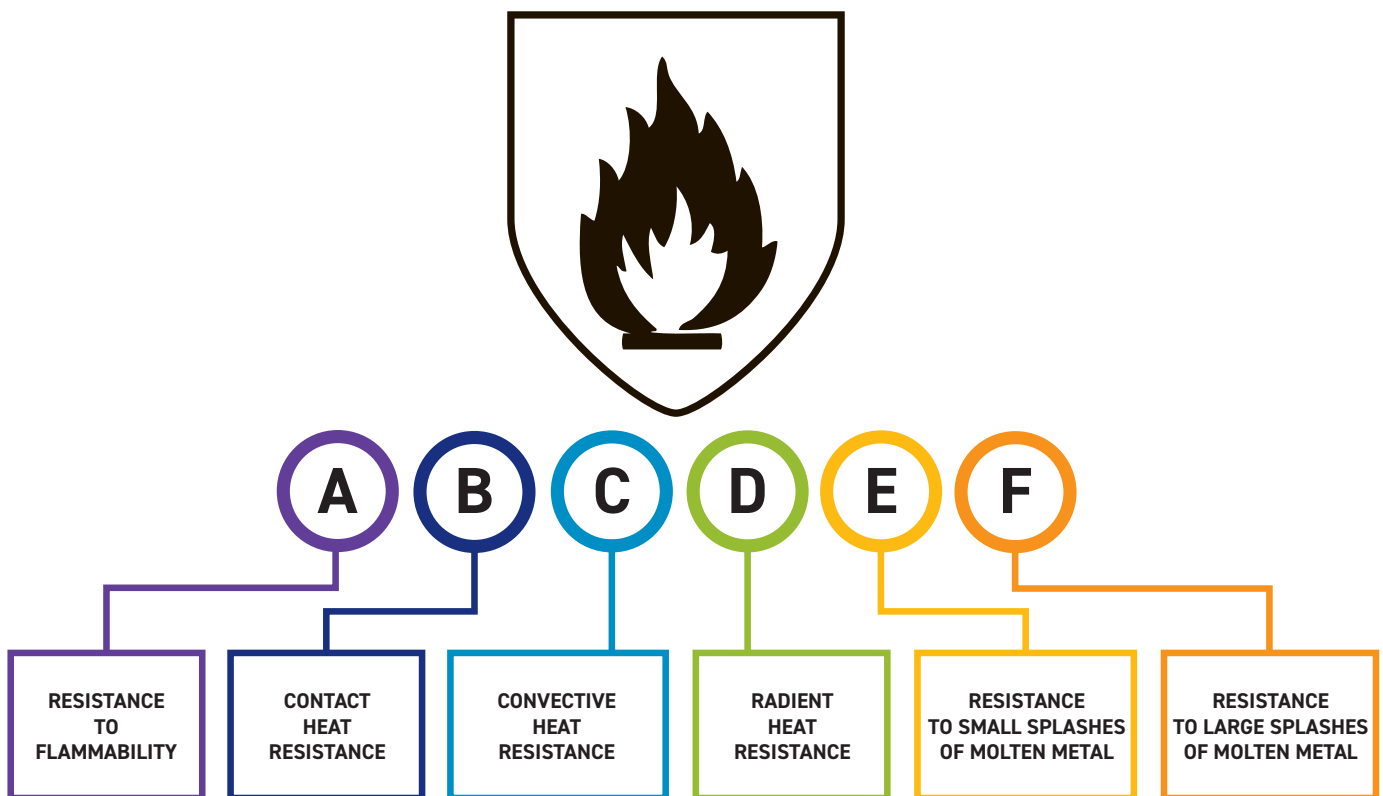
AS/NZS 2161.4:1999 - Protection against thermal risks (heat and fire) EN407

Scope

This standard specifies thermal performance for protective gloves against heat and/or fire. It is expressed by using the heat and flame pictogram.

Definition and Requirements

The nature and degree of protection is shown by a pictogram followed by a series of six performance levels, relating to specific protective qualities. Gloves must also achieve at least Performance level 1 for abrasion and tear.



Product Data Sheet

A – Resistance to flammability (Performance level 0–4)

Based on the length of time the material continues to burn and glow after the source of ignition is removed. The seams of the glove shall not come apart after an ignition time of 15 seconds.

Burning behaviour is tested according to EN ISO 6941 with the glove mounted and tested vertically. A flame is placed directly below and in line with the glove at an angle of 30° and a distance of 20mm. The glove is tested for each ignition time i.e. 3 seconds and 15 seconds.

Performance Level	After Flame Time (s)	After Glow Time (s)
1	20	No req
2	10	120
3	3	25
4	2	5

B – Contact heat resistance (Performance level 0–4)

Based on the temperature range (100-500°C) at which the user will feel no pain for at least 15 seconds. If an EN level 3 or higher is obtained, the product shall record at least EN level 3 in the flammability test. Otherwise, the maximum contact heat level shall be reported as level 2.

Contact Heat is tested according to EN 702. Samples are taken from the palm area and placed in contact with a cylinder of the appropriate temperature. To gain the relevant performance level, the temperature of the inside of the glove cannot rise by more than 10°C within the threshold time.

Performance Level	Contact Temp °C	Threshold Time
1	100	15
2	250	15
3	350	15
4	500	15

C – Convective heat resistance (Performance level 0–4)

Based on the length of time the glove is able to delay the transfer of heat from a flame. A performance level shall only be mentioned if a performance level of 3 or 4 is obtained in the flammability test.

Convective Heat is tested according to EN 367:1992. Samples are subjected to the incidental heat from a flame, and the heat passing through to the inside of the glove is measured. The time to record a temperature rise of 24°C is the Heat Transfer Index (HTI).

Performance Level	Heat Transfer Index HTI (s)
1	4
2	7
3	10
4	18

D – Radiant heat resistance (Performance level 0–4)

Based on the length of time the glove is able to delay the transfer of heat when exposed to a radiant heat source. A performance level shall only be mentioned if a performance level 3 or 4 is obtained in the flammability test.

Radiant Heat is tested according to EN ISO 6942:2002. The back of the sample is exposed to radiant heat density of 20kW/m² and the time taken for the temperature on the inside of the glove to rise 24°C gives the performance level.

Performance Level	Heat Transfer Index HTI (s)
1	7
2	20
3	50
4	95

E – Resistance to small splashes of molten metal (Performance level 0–4)

The number of molten metal drops required to heat the glove sample to a given level. A performance level shall only be mentioned if a performance level 3 or 4 is obtained in the flammability test.

Resistance to small splashes of molten metal is tested according to EN 348:1992. Molten drops from a metal rod melted by exposing the rod to a flame are allowed to fall on the sample. The number of drops required to raise the temperature on the inside of the glove by 40°C gives the performance level.

Performance Level	Heat Transfer Index HTI (s)
1	10
2	15
3	25
4	35

F – Resistance to large splashes of molten metal (Performance level 0–4)

The weight of molten metal required to cause smoothing or pin-holing across a simulated skin placed directly behind the glove sample. The test is failed if metal droplets remain stuck to the glove material or if the specimen ignites.

Resistance to large splashes of molten metal is tested according to EN 373:1993. A quantity of molten iron is poured onto the sample, which has a PVC film mounted behind the sample. This film must not show any changes to the surface (such as discrete spots or damage) when the sample is exposed to the quantity of molten iron as shown in the following table:

Performance Level	Heat Transfer Index HTI (s)
1	30
2	60
3	120
4	200