

Product Data Sheet

Aluminised Hood

Designed to protect the head and upper body in heavy duty furnace environments where protection from high radiant heat, sparks and slag is required.

Features

- Full head, neck, shoulder and chest protection
- The front of the visor is coated with a thin film of 24 ct gold. This layer of gold is very effective at reflecting and blocking heat
- Replaceable integrated visor 360mm wide x 190mm high viewing area
- Underarm straps to ensure hood stays in place when bending over.

The hood comprises of:

- ELLGARD® Gold Visor
- Heat resistant plastic bracket
- Type 1 Hard Hat

Standards & Certifications

The ELLGARD® Gold Visor is compliant with:

- ANSI/ISEA Z87.1 American National Standard for Occupational and Educational Personal Eye and Face Protection Devices
- EN 170 Personal eye-protection – ultraviolet filters – transmittance requirements and recommended use
- EN 171 Personal eye-protection - Infrared filters - Transmittance requirements and recommended use

ISO 11612



Fabric System	Fabric/Description	Part Number
CA340*	Aluminised Carbon / Aramid 340gsm / T-Gard® P190	FCA340LHD1GV
PR720L*	Aluminised Preox 720gsm / T-Gard® P190	FPR720LHD1GV
AR530	Aluminised Aramid / T-Gard® P190	FAR530LHD1GV
	Replacement Visor for Foundry Hood	ELLGARD55V

*Complies with ISO 11612 requirements

Product Data Sheet

Aluminised Fabrics

Unlined

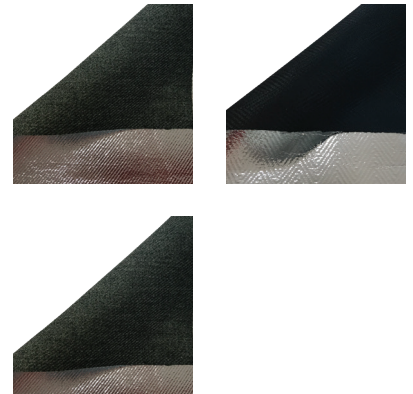
Single layer Aluminised Fabric only.

Series	Fabric	Aluminised Technology	Weight
CA340	Aluminised carbon / Aramid	Reflespace	340 gsm
AR530	Aluminised Aramid	TBA	530 gsm
PR720	Aluminised Preox (Pre-oxidised acrylic)	TBA	720 gsm

Lined

Aluminised Fabric with T-Gard® P190 thermal liner.

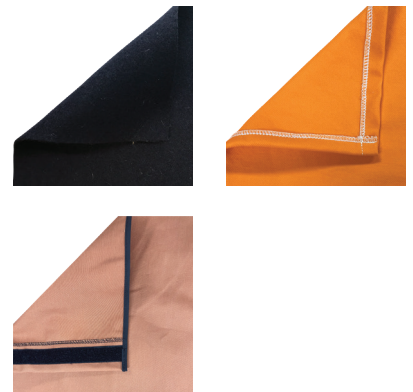
Series	Fabric	Weight
CA340L	Aluminised CA340/ T-Gard P190	340 gsm + 430 gsm = 770 gsm
AR530L	Aluminised AR530/ T-Gard P190	530 gsm + 430 gsm = 960 gsm
PR720L	Aluminised PR720/ T-Gard P190	720 gsm + 430 gsm = 1150 gsm



Non Aluminised Fabrics

Single layer Aluminised Fabric only.

Series	Fabric	Weight
WELDWOL	100% Wool	780 gsm
PR97	Merino wool and Lenzing FR®	380 gsm
PROBAN	PROBAN® FR	340 gsm

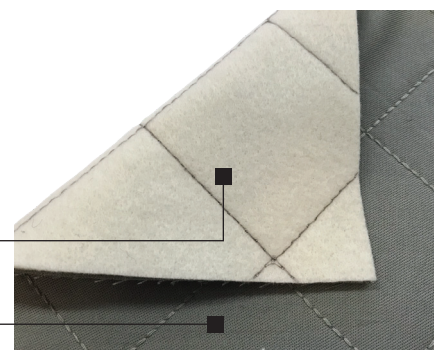


Liner Fabric

The T-Gard® P190 Thermal Liner has been specifically designed for Furnace PPE and is exclusive to Elliotts. T-Gard® P190 is light weight and offers excellent thermal protection. The face fabric is a Proban FR 100% Cotton which provides a comfortable FR material against the body that can easily wick away moisture. The thermal batting is a 100% Nomex.

100% Nomex

Proban FR 100% Cotton



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Fabric Performance

Unlined

Series	Limited Flame Spread Face Ignition Code A1 (Outer Fabric)	Limited Flame Spread Edge Ignition Code A2	Convective Heat Code B	Radiant Heat Code C	Molten Aluminium Splash Code D	Molten Iron Splash Code E	Contact Heat Code F
CA340	A1	NT	B1 7.4s	C3 54.4s	D3 >350g	E3 >200g	F0 4.9s
AR530	NT	NT	NT	NT	NT	NT	NT
PR720	A1	NT	B1 6.9s	C3 66.0s	D3 >350g	E3 >200g	F1 8.8s

NT – No test data available on AR530

Lined

Series	Limited Flame Spread Face Ignition Code A1 (Outer Fabric)	Limited Flame Spread Face Ignition Code A1 (Lining Fabric)	Limited Flame Spread Edge Ignition Code A2	Convective Heat Code B	Radiant Heat Code C	Molten Aluminium Splash Code D	Molten Iron Splash Code E	Contact Heat Code F
CA340L	A1 Pass	A1 Pass	A2 Pass	B2 15.2s	C4 165.7s	D3 >350g	E3 >200g	F3 16.7s
AR530L	A1 Pass	A1 Pass	A2 Pass	B3 21.3s	C4 215.9s	NT	NT	F3 20.1s
PR720L	A1 Pass	A1 Pass	A2 Pass	B2 15.8s	C4 186.2s	D3 >350g	E3 >200g	F3 15.4s

NT – No test data available on AR530

Fabric System Evaluation

Heat Protection		HIGHEST			LOWEST	
Convective Heat	Unlined	CA340	PR720	AR530 (NT)		
	Lined	AR530L	PR720L	CA340L		
Radiant Heat	Unlined		PR720	CA340		
	Lined	AR530L	PR720L	CA340L		
Contact Heat	Unlined	PR720	CA340	AR530 (NT)		
	Lined	AR530L	CA340L	PR720L		

Molten Aluminum and Iron Splash

Molten Aluminum Splash	All Fabrics achieved the highest possible rating of D3 and are suitable for Molten Aluminium Splash
Molten Iron Splash	All Fabrics achieved the highest possible rating of E3 and are suitable for Molten Iron Splash

NT – No test data available on AR530 and AR530L

Comfort – Weight

		LIGHTEST		HEAVIEST
Weight	Unlined	CA340	AR530	PR720
	Lined	CA340	AR530	PR720

Comfort – Flexibility

		MOST FLEXIBLE		LEAST FLEXIBLE
Flexibility	Unlined	CA340	PR720	AR530
	Lined	CA340	PR720	AR530

Product Data Sheet

Certifications and Standards

The international standard most commonly used around the world for protective clothing for furnace operators is ISO 11612 Protective clothing – Clothing to protect against heat and flame.

This International Standard specifies performance requirements for protective clothing made from materials, which are designed to protect the wearer's body, except the hands, from heat and/or flame. For protection of the wearer's head and feet, the only items of protective clothing falling within the scope of this International Standard are gaiters, leggings, hoods, and overboots. However, concerning hoods, requirements for visors and respiratory equipment are not given.

The performance requirements set out in this International Standard are applicable to protective clothing which could be worn for a wide range of end uses, where there is a need for clothing with limited flame spread properties and where the user can be exposed to radiant, convective, contact heat and/or to molten metal splashes.

ISO 11612: 2015



A1 or A1 + A2, B(x), C(x), D(x), E(x), F(x)

This Standard defines the minimum requirements for clothing for protection against heat and flames.

- Clothing must be supplied with user information from the manufacturer.
- Code A must be complied with, and at least one of the heat transmission performance codes B–F must be met.

Code	Test Method	Protection Against	Performance Level	Minimum Requirement
A	ISO 15025 Procedure A ISO 15025 Procedure B	Limited Flame Spread – Face Ignition Limited Flame Spread – Edge Ignition	A1 OR (A1 AND A2)	Pass
B	ISO 9151	Convective Heat	B1 to B3	B1
C	ISO 6942	Radiant Heat	C1 to C4	C1
D	ISO 9185	Molten Aluminium Splash	D1 to D3	D1
E	ISO 9185	Molten Iron Splash	E1 to E3	E1
F	ISO 12127-1	Contact Heat	F1 to F3	F1

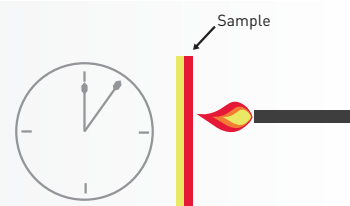
Physical requirements including Tensile Strength, Tear Strength, and Seam strength must also be tested independently.

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CODE A. Flame propagation (ISO 15025 method A)

Sample is exposed to flame for 10 seconds then removed

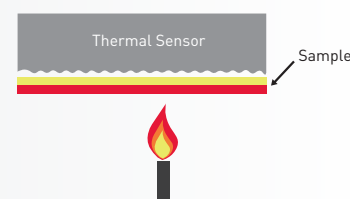
	WORST	GOOD	BEST
Performance level	X	A1	A2
Average value of flame persistence < 2 s	Test	Test	Test
Average value of residual incandescence < 2 s	Not passed	Passed	Passed



CODE B. Convective heat (ISO 9151)

Temperature increase behind sample is measured

	WORST	GOOD	BEST
Performance level	B1	B2	B3
Heat Transmission Index – HTI (seconds)			
min	4	10	20
max	<10	<20	

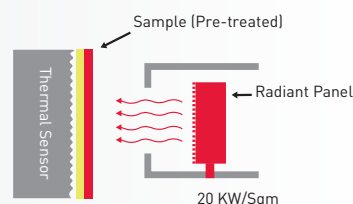


HTI = Average of HTI12 and HTI2 HTI = Time to increase temperature by 24°C HTI = Time to increase temperature by 12°C

CODE C. Radiant heat (ISO 6942 method B)

Temperature increase behind sample is measured

		WORST	GOOD		BEST
Performance level		C1	C2	C3	C4
Heat transfer t_{24} (seconds)	min	7	20	50	95
T = Time to increase temperature by 24°C					
	max	<20	<50	<95	

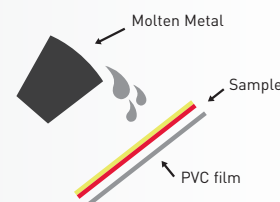


CODE D. Splashes of molten aluminum (ISO 9185)

Quantity necessary to damage PVC film is measured

	WORST	GOOD	BEST
Performance level	D1	D2	D3
Molten metal weight (grams)			
min	100	200	350
max	<200	<350	

Molten Aluminum at 780°C (+/- 20°C) (1436°F) PVC film simulates human skin

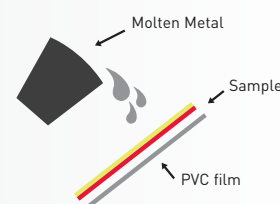


CODE E. Splashes of molten cast-iron (ISO 9185)

Quantity necessary to damage PVC film is measured

	WORST	GOOD	BEST
Performance level	E1	E2	E3
Molten metal weight (grams)			
min	60	120	200
max	<120	<200	

Molten Cast-Iron at 1400°C (+/- 20°C) (2552°F) PVC film simulates human skin



CODE F. Contact heat (ISO 12127)

Heat transmission is measured

	WORST	GOOD	BEST
Performance level	F1	F2	F3
Threshold time (seconds)			
min	5	10	15
max	<10	<15	

Threshold time = time necessary to increase temperature by 1°C

