



ABRAT



Manufacturer :
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ZARAGOZA (ESPAÑA)

Cat. III
CE

EN ISO 13688

DESIGNADO POR MAQUERA EN ESPAÑA

OVERALL (ABRAT)

Garments un flame retardant, anti-static fabric for electric arc
PPE Category III (Directive 89/686/EEC)

This product has been made in accordance with the applicable requirements of Royal Decree 1407/1992 for basic use according to EN ISO 13688 (Protective Clothing. General Requirements), EN 11612 (Clothing to protect against heat and flames), EN ISO 11611 (Protective clothing for use in welding and allied processes), UNE EN 1149-3 (Protective clothing. Electrostatic properties. Part 3: Test methods to determine charge dissipation), UNE EN 1149-5 (Protective clothing. Electrostatic properties. Part 5: Material performance and design requirements) IEC 61482-1-2 (Protective clothing against the thermal hazards of an electric arc), according to certificate no. 0161/1551/08 issued by AITEX, Plaza Emilio Sala, 1 Alcoy, Spain, Notified Body N.B. 0161



Recommendations for use

This PPE is made from 98% cotton and 2% carbon fibre and complies with the requirements of the Explosive Atmospheres (ATEX) directive. It is recommended for industrial activities in which the user is subject to:

- * Brief contact with a low flame.
 - * Low power convective heat sources or convective heat sources equivalent to 80 kw/m
 - * Low power radiant heat sources or radiant heat sources equivalent to 80 kw/m
 - * Electrostatic charges. The PPE must be in contact with the user's skin to allow the dissipation of charges. The user must wear appropriate electrostatic footwear. If necessary the user must be grounded.
 - * The garment protects against thermal hazards caused to a user located at 300 mm distance from an electric arc produced by a 7kA current between 2 electrodes that are 30 mm away from each other.
 - * It minimises the possibility of small electric shocks and accidental contact with electrical conductors carrying voltages of no more than 100v DC in normal welding conditions.
 - * The use of additional partial body protection (gloves, hoods...) may be necessary.
- The PPE must be worn properly fastened and adjusted for optimal protection.

Recommendations to avoid misuse:

- * This PPE must never be used against hazards other than those described above.
- * Dirt or molten residues adhered to the garment damage its performance.
- * This garment does not protect the head, hands and feet.
- * If the garment comprises two pieces the user must wear them together to achieve the correct level of protection.

Attention: The manufacturer does not accept liability for garments in which the care label has been ignored, damaged or removed.

Packaging: Plastic bag

Storage: Store the garment away from unnecessary exposure to sunlight and in a dry place, protected from any aggressive agents.

Expiry: Recommended duration of 5 years. The PPE must be replaced if damaged

EN ISO 11612:2008



A1 A2 B1 C1

Performance levels according to EN ISO 11611

Limited flame propagation A1 front flame A2 edge flame
No destruction to edges. No hole formed.

No melting.

Afterglow time ≤ 2 s. Post-combustion time ≤ 2 s

Radiant Heat

Class 1	RHTI ₂₄ ≥ 7s.
Class 2	RHTI ₂₄ ≥ 16s.

Resultados obtenidos
Results
15.7 s

Small splashes of molten material

Class 1	Minimo 15 gotas
Class 1	Minimum 15 drops
Class 2	Minimo 25 gotas
Class 2	Minimum 25 drops

Resultados obtenidos
Results
17 drops

Type of garment for welders	Selection points	
	Process related	Related to environmental
Class 1	Manual welding methods with slight droplet and spatter formation - Gas Welding - TIG Welding - MIG Welding - Plasma Welding - Deck Welding - MMA Welding	Machine Operations: - Oxygen cutting machines - Plasma cutting machines - Welding Bench.
Class 2	Manual welding methods with strong droplet and spatter formation: - MIG Welding - MIG Welding (with high current)	- Confined spaces - Welding overhead or in forced positions.

Performance levels according EN 1149-5 // EN 1149-3

Risk of accumulation of electrostatic charges. Requirements

t₅₀ mean value of the half-dissipation time

S protection factor

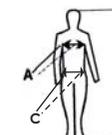
$$t_{50} < 4 \text{ s} \quad \text{o} \quad S > 0,2$$

Design: Point 4.2 of the norm

Resultados obtenidos
Results
t ₅₀ = 0.05 s
S = 0.37
Design: complies

CHEST CONTOUR	TOTAL HEIGHT	WAIST CONTOUR
A	B	C
76 - 80	152 - 158	56 - 60
80 - 84	158 - 164	60 - 64
84 - 88	164 - 170	64 - 68
88 - 92	170 - 176	68 - 72
92 - 96	176 - 182	72 - 76
96 - 100	182 - 188	76 - 80
100 - 104	188 - 194	80 - 84
104 - 108		84 - 88
108 - 112		88 - 92
112 - 116		92 - 96
		96 - 100
		100 - 104
		104 - 108
		108 - 112
		112 - 116

A- CHEST CONTOUR
B- TOTAL HEIGHT
C- WAIST CONTOUR



*** folleto informativo para el usuario ***

UNE EN 1149-3:2004

UNE EN 1149-5:2004

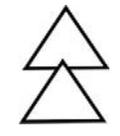


EN ISO 11611:2007



CLASS 1

IEC 61482-1-2



CLASS 1

Performance levels according to EN ISO 11612

Limited flame spread.
A1 front flame. A2 flame on edge

There is not destruction to the edges.
There is no hole formation.
There is no merger.
Post glow time ≤ 2 s
Post-combustion time ≤ 2 s.

Convective Heat (code B)

Performance levels	Rank of HTI ^a 24	
	min.	máx.
B1	4,0	< 10,0
B2	10,0	< 20,0
B3	20,0	

a : heat transfer index, according to ISO 6942

Radiant Heat (Code C)

Performance levels	Transfer factor: HTI ^a 24	
	min.	máx.
C1	7,0	< 20,0
C2	20,0	< 50,0
C3	50,0	< 95,0
C4	95,0	

a : radiant heat transfer index according to ISO 6942

Cast aluminum splash (code D)

Performance levels	Cast aluminum splash	
	min.	máx.
D1	100	< 200
D2	200	< 350
D3	350	

Cast Iron Splash (code E)

Performance levels	Cast Iron Splash	
	min.	máx.
E1	60	< 120
E2	120	< 200
E3	200	

Contact Heat (code F)

Performance levels	Threshold Time	
	min.	máx.
F1	5,0	< 10,0
F2	10,0	< 15,0
F3	15,0	

Electric Arc according IEC 61482-1-2: Class 1 (4kA)

Washing recommendations

- Washing symbols: max. 50 °C, iron, no bleach, no dry clean, no tumble dry.
- Wash at a minimum temperature of 40°C
- Iron at a maximum temperature of 110°C
- Do not use bleach
- Dryer forbidden
- Respecting the washes at the maximum recommended temperature, the response of these fabrics is extraordinary for the number of washes indicated above.
- In case of not respecting the washing, ironing or drying recommendations, the garment may suffer deterioration