

WELDING GLOVES

Instruction for use



PLEASE READ THESE INSTRUCTIONS CAREFULLY

Current legislation (Italian Legislative Decree 81:2008) holds the employer (user) responsible for the identification and choice of appropriate PPE for the risks present in the workplace (in terms of the features and category of PPE). It is therefore essential to check that the features of this model are appropriate for your requirements before beginning to use it. The employer must also inform the worker in advance of the risks the PPE protects against, providing instruction and/or training in proper use and practical utilisation of the PPE if necessary. **This Note must be kept for the entire time in which the PPE is in use.**

COMPOSITION

- MATERIAL: split leather and grain leather
- COLOR: yellow/black (split leather)
white (grain leather)

CATEGORY (D.E. 89/686/CEE): II ^

USE

The garments described in this note comply with the specifications contained in European standards and are suitable for the use described below; they are NOT suitable for any other use (and specifically for all category III risks identified in European Directive 89/686/EEC).

European Directive 89/686/EEC:1989: harmonisation of member states' PPE legislation

EN 420:2003+A1:2009: general requirements for innocuousness, ergonomics and sizes

EN 388:2016: requirements for protection against mechanical risks, for maintenance work, plant cleaning, work with tools, metal structural work, handling of metal profiles, grinding and/or removal of burr, carpentry, handling of objects with sharp corners and of rough or abrasive objects

EN 407:2004: requirements for protection against heat risks, for occasional contact with small flames and for contact with hot objects at temperatures not exceeding 100°C

EN 12477:2001+A1:2005: requirements for welders

GENERAL WARNINGS

The values obtained in the technical examinations conducted to determine performance levels are reported in the section on PERFORMANCE.

As they are made of the same material throughout, the specified performance values may be extended to all parts of the glove. The gloves are made to ensure that they are not themselves a cause of risk or interference for the user; the materials they are made of have been selected to offer the best performance and the greatest durability, and there are, to the best of our current knowledge, no contraindications for their use.

The gloves have been manufactured to ensure that there are no points (such as stitching or accessory parts in direct contact with the skin) that could cause excessive irritation or injury to the wearer.

The specified safety features are guaranteed only if the gloves are of the correct size, worn correctly, fastened up, and in perfect condition. Inspect them before each use to make sure that they are in perfect condition, integral and clean; replace them if they are not integral (loose stitches, breakage or holes); if they are dirty, clean as described in the MAINTENANCE section. The manufacturer shall not be held liable for any damage or other consequences of improper use, or if the PPE has been modified in any way with respect to its certified configuration. If the instructions provided in this note are not followed, the PPE will lose its technical and legal effectiveness.

The user must not remove the gloves at any time while in the work area at risk.

SPECIFIC WARNINGS

Gloves must not be worn in the presence of a risk of entanglement in moving parts of machinery.

With reference to standard EN 12477, type B gloves are recommended when great dexterity is required, as in TIG welding. Type A gloves are recommended for all other welding procedures. Gloves protect the hands and wrists during welding procedures and related operations against splattering of small quantities of molten metal, brief exposure and contact with small flames, convective heat, heat due to contact and UV rays from the arc (there is no test method for measuring penetration of UV rays in the materials the gloves are made of, but the methods currently used to make protective gloves do not permit penetration of UV rays). They also protect against mechanical aggression.

If the gloves are to be used during arc welding: The material the gloves are made of offers minimal electrical resistance up to 100 V (DC) during arc welding. These gloves do not protect against electric shock from defective equipment or work performed under voltage, and electrical resistance will be reduced if the gloves are wet, dirty or sweaty, which could add to the risk

INTERPRETATION OF PERFORMANCE LEVELS

EN 420:2010	Requirements	Results
Dexterity	level 1 = 11 mm level 2 = 9,5 mm level 3 = 8 mm level 4 = 6,5 mm level 5 = 5 mm	level 3
Determination of pH	3,5 < pH < 9,5	pass
Chrome VI content	< 3 mg/kg	pass

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MIG WELDING GLOVES

Gloves with split leather palm

EN 388:2017	Requirements	Results
Abrasion resistance	level 1 = 100 cycles level 2 = 500 cycles level 3 = 2000 cycles level 4 = 8000 cycles	level 4
Resistance to cutting with a blade	level 1 = 1,2 index level 2 = 2,5 index level 3 = 5,0 index level 4 = 10 index level 5 = 20 index	level 2
TDM Resistance to cutting with a blade	level A = 2 level B = 5 level C = 10 level D = 15 level E = 22 level F = 30	n/a
Resistance to tearing	level 1 = 10 N level 2 = 25 N level 3 = 50 N level 4 = 75 N	level 3
Resistance to perforation	level 1 = 20 N level 2 = 60 N level 3 = 100 N level 4 = 150 N	level 4
Attenuation of impact on knuckles	Single result, highest force: ≥ 9 kN Average force of all tests: ≥ 7 kN	n/a

Gloves with grain leather palm

EN 388:2017	Requirements	Results
Abrasion resistance	level 1 = 100 cycles level 2 = 500 cycles level 3 = 2000 cycles level 4 = 8000 cycles	level 2
Resistance to cutting with a blade	level 1 = 1,2 index level 2 = 2,5 index level 3 = 5,0 index level 4 = 10 index level 5 = 20 index	level 1
TDM Resistance to cutting with a blade	level A = 2 level B = 5 level C = 10 level D = 15 level E = 22 level F = 30	n/a
Resistance to tearing	level 1 = 10 N level 2 = 25 N level 3 = 50 N level 4 = 75 N	level 2
Resistance to perforation	level 1 = 20 N level 2 = 60 N level 3 = 100 N level 4 = 150 N	level 2
Attenuation of impact on knuckles	Single result, highest force: ≥ 9 kN Average force of all tests: ≥ 7 kN	n/a

UNI EN 388:2017



4 2 3 4 X

a b c d e

- a** ABRASION
- b** RESISTANCE TO CUTTING
- c** RESISTANCE TO TEARING
- d** RESISTANCE TO PERFORATION
- e** ATTENUATION OF IMPACT

UNI EN 388:2017



2 1 2 2 X

a b c d e

- a** ABRASION
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Gloves with split leather/ grain leather palm

EN 407:2004	Requirements	Results
Fire reaction	level 1 ≤ 20s post combust. level 2 ≤ 10s post combust. level 3 ≤ 3s post combust. level 4 ≤ 2s post combust.	level 4
Contact heat	level 1 ≥ 15 s a 100°C level 2 ≥ 15 s a 250°C level 3 ≥ 15 s a 350°C level 4 ≥ 15 s a 500°C	level 1
Convective heat	level 1 ≥ 4 s level 2 ≥ 7 s level 3 ≥ 10 s level 4 ≥ 18 s	level 3
Radiating heat	level 1 ≥ 7 s level 2 ≥ 20 s level 3 ≥ 50 s level 4 ≥ 95 s	level 2
Splattering of small quantities of molten metal	level 1 ≥ 10 drops level 2 ≥ 15 drops level 3 ≥ 25 drops level 4 ≥ 35 drops	level 4
Projection of large quantities of molten metal	level 1 ≥ 30 g level 2 ≥ 60 g level 3 ≥ 120 g level 4 ≥ 200 g	n/a

UNI EN 407:2004



4 1 3 2 4 X

a b c d e f

- a REACTION TO FLAME
- b CONTACT HEAT
- c CONVECTIVE HEAT
- d RADIATING HEAT
- e SPLATTERING WITH SMALL QUANTITIES OF MOLTEN METAL
- f SPLATTERING WITH LARGE QUANTITIES OF MOLTEN METAL

EN 12477:2006	Requirements	Results	Results as sampled
Abrasion resistance	level 1 = 100 cycles level 2 = 500 cycles	B A	Type A
Resistance to cutting with a blade	level 1 = 1,2 index	B A	Type A
Resistance to tearing	level 1 = 10 N level 2 = 25 N	B A	Type A
Resistance to perforation	level 1 = 20 N level 2 = 60 N	B A	Type A
Fire reaction	3 2	B A	Type A
Resistance to contact heat	1		pass
Resistance to convective heat	HTI ≥ 7		pass
Resistance to splattering with small quantities of molten metal	2 (15 drops) 3 (25 drops)	B A	Type A
Vertical electrical resistance	>105 Ω		pass

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TIG WELDING GLOVES

UNI EN 388:2017	Requirements	Results
Abrasion resistance	level 1 = 100 cycles level 2 = 500 cycles level 3 = 2000 cycles level 4 = 8000 cycles	level 2
Resistance to cutting with a blade	level 1 = 1,2 index level 2 = 2,5 index level 3 = 5,0 index level 4 = 10 index level 5 = 20 index	level 2
TDM Resistance to cutting with a blade	level A = 2 level B = 5 level C = 10 level D = 15 level E = 22 level F = 30	n/a
Resistance to tearing	level 1 = 10 N level 2 = 25 N level 3 = 50 N level 4 = 75 N	level 3
Resistance to perforation	level 1 = 20 N level 2 = 60 N level 3 = 100 N level 4 = 150 N	level 2
Attenuation of impact on knuckles	Single result, highest force: ≥ 9 kN Average force of all tests: ≥ 7 kN	n/a

UNI EN 407:2004	Requirements	Results
Fire reaction	level 1 ≤ 20 s post combust. level 2 ≤ 10 s post combust. level 3 ≤ 3 s post combust. level 4 ≤ 2 s post combust.	level 4
Contact heat	level 1 ≥ 15 s at 100°C level 2 ≥ 15 s at 250°C level 3 ≥ 15 s at 350°C level 4 ≥ 15 s at 500°C	level 1
Convective heat	level 1 ≥ 4 s level 2 ≥ 7 s level 3 ≥ 10 s level 4 ≥ 18 s	level 3
Radiating heat	level 1 ≥ 7 s level 2 ≥ 20 s level 3 ≥ 50 s level 4 ≥ 95 s	level 2
Splattering of small quantities of molten metal	level 1 ≥ 10 drops level 2 ≥ 15 drops level 3 ≥ 25 drops level 4 ≥ 35 drops	level 4
Projection of large quantities of molten metal	level 1 ≥ 30 g level 2 ≥ 60 g level 3 ≥ 120 g level 4 ≥ 200 g	n/a

UNI EN 388:2017



2 2 3 2 X

a b c d e

- a** ABRASION
- b** RESISTANCE TO CUTTING
- c** RESISTANCE TO TEARING
- d** RESISTANCE TO PERFORATION
- e** ATTENUATION OF IMPACT

UNI EN 407:2004



4 1 3 2 4 X

a b c d e f

- a** REACTION TO FLAME
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- e** SPLATTERING WITH SMALL QUANTITIES OF MOLTEN METAL
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EN 12477:2006	Requirements	Results	Results as sampled
Abrasion resistance	level 1 = 100 cycles level 2 = 500 cycles	B A	Type A
Resistance to cutting with a blade	level 1 = 1,2 index	B A	Type A
Resistance to tearing	level 1 = 10 N level 2 = 25 N	B A	Type A
Resistance to perforation	level 1 = 20 N level 2 = 60 N	B A	Type A
Fire reaction	3 2	B A	Type A
Resistance to contact heat	1		pass
Resistance to convective heat	HTI \geq 7		pass
Resistance to splattering with small quantities of molten metal	2 (15 drops) 3 (25 drops)	B A	Type A
Vertical electrical resistance	>105 Ω		N/A

a INE SpA
Via Facca, 10 | 35013 Cittadella (PD)
www.ine.it

b GUANTO Modello art. MIG base

c Taglia 10
PRSC011A

d PRSC011A

e CE
UNI EN 388:2017
UNI EN 407:2004

f 4 2 3 4 X
g 4 1 3 2 4 X

h UNI EN 12477:2006
Type A

MARKINGS (example)

a Manufacturer

b Model

c Size

d Product name

e EC mark

f Symbol indicating mechanical risks and protection indexes

g Symbol of thermal risks

h Symbol indicating risks from welding

TRANSPORTATION AND STORAGE: transport and store the garment in its original package, in a cool, dry place far away from heat sources and protected from light. Do not fold or crush.

OBSOLESCENCE DATE: until consumed by wear, if kept in good condition

DISPOSAL: If the garments have not been contaminated with particular substances or products, they may be disposed of along with ordinary fabric waste; if they are contaminated, they must be disposed of in accordance with legislation governing special waste

MAINTENANCE INSTRUCTIONS: scrupulously follow the instructions given below.

Do not wash

Do not bleach

Do not tumble dry

Do not iron

Do not dry clean

THE MARKING
CE guarantees free circulation in the trade of products and goods within the European Economic Community. EC marking on the product means that it meets the essential requirements of European Directive 89/686/EEC.

PRODUCTS

MIG - BASIC

CODE	SIZE
PRSC011A	10
PRSC012A	11

MIG - REINFORCED

CODE	SIZE
PRSC021A	10
PRSC022A	11

MIG - GRAIN PALM

CODE	SIZE
PRSC031A	10
PRSC032A	11

TIG

CODE	SIZE
PRSC041A	9
PRSC042A	10
PRSC043A	11