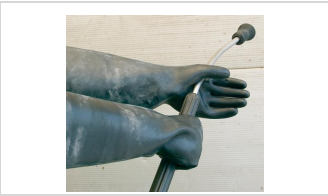
GLOVE JUBA - 561160 SANDBLASTING



STANDARDS

CE CAT.III

EN 388:2016+A1:2018 — 4121X

ENISO374-1:2016 TYPE A — AKLMNOPT

ENISO374-5:2016

EN421:2010

EN 407:2020 — X1XXXX

CHARACTERISTICS

- It complies with the EN421 standard that certifies gloves for PROTECTION AGAINST IONIZING RADIATION AND RADIOACTIVE CONTAMINATION.
- Extra thick offering superior chemical resistance and high resistance to abrasion.
- Extra long, easy to remove and put on with a mouth width of 22.5 cm.
- Chlorinated for greater chemical resistance and low in soluble proteins.
- Bactericidal and fungicidal treatment.
- It is marketed with a neutral individual bag.
- Heat protection by contact 250º for 15 seconds.
- This glove protects against the following chemicals: Methanol (level 6,> 240 minutes), Sodium Hydroxide 40% (level 6,> 480 minutes), Sulfuric Acid 96% (level 4,> 120 minutes), Nitric Acid 65% (level 6,> 480 minutes), Acetic Acid (level 5,> 240 minutes), Ammonium Hydroxide 25% (level 3,> 60 minutes), Hydrogen Peroxide 65% (level 6,> 480 minutes) and Formaldehyde 37% (level 6,> 480 minutes).
- For bacteria and fungi this glove is totally watertight according to EN 374-2: 2014.

WORKING GLOVES SUITABLE FOR:

- Chemical industry.
- Maintenance and heavy industry.
- Maintenance of water vapor, air or sandblast spray machines (shot blasting).
- Management of ketones.
- Farming.
- Nuclear power plants.
- Phytosanitary.

MORE INFORMATION

Materials	Color	Thick	Long	Sizes	Packaging
Latex	Black	1.30 mm	XL - 60 cm	10/XL	6 Pairs/package 36 Pairs/box

STANDARDS

EN388:2016 Protective gloves against mechanical risks
According to this standard, characteristics such as abrasion resistance, cut resistance, tearing strength, puncture resistance and impact protection are tested. In conjunction with the pictogram, four numbers and one, or two letters, will be displayed. These signs indicate the performance of the glove.

ABRASION RESISTANCE

The material is subjected to abrasion by a sandpaper under a determined pressure. The protection level is indicated on a scale of 1 to 4 depending on the number of turns required until a hole appears in the material. The higher the number is, the better the resistance to abrasion.

CUT RESISTANCE, COUP TEST

The cut protection is tested. A knife is passed over the glove material until it cuts through. The protection level is given by a number between 1 and 5, where 5 indicates the highest cut protection. If the material dulls the knife during this test, the cut test ISO 13997(TDM test) shall be performed instead, see point 5.

TEARING STRENGTH

The force required to tear the glove material apart is measured. The protection level is indicated by a number between 1 and 4, where 4 indicates the strongest material.

PUNCTURE RESISTANCE

Based on the amount of force required to puncture the material with a tip. The protection function is indicated by a number between 1 and 4, where 4 indicates the strongest material.

CUT RESISTANCE, TDM TEST ISO 13997

If the knife gets dull during the coup test, see point 2, this test shall be performed instead. The result is given by a letter, A to F, where F indicates the highest level of protection. If any of these letters is given, this method determines the protection level instead of the coup test.

ISO 13997:1999 – Determination of resistance to cutting by sharp objects

An alternative cut test recommended for cut protection gloves. Shall be used in EN388:2016 for cut protection gloves where the cut material dulls the cutting knife during testing. A knife cuts with constant speed but increasing force until breakthrough of the cut protection material. Level of protection is given in Newton, the force needed for cut through at 20mm cut length.

IMPACT PROTECTION

If the glove has an impact protection, this information is given by the letter P as the 6th and last sign. If no P sign, no impact protection is claimed.

EN ISO 374:2016 Protective gloves against dangerous chemicals and micro-organisms

Chemicals can cause seriously harm for both the personal health and the environment. Two chemicals, each with known properties, can cause unexpected effects when they are mixed. This standard gives directives of how to test degradation and permeation for 18 chemicals but doesn't reflect the actual duration of protection in the workplace and the differences between mixtures and pure chemicals. This standard specifies the demands of the requirements for a glove to protect against dangerous chemicals and micro-organisms. The shortest allowable length that is liquid tight shall correspond to the minimum length of the gloves as specified in EN 420:2003 + A1:2009

PENETRATION

Chemicals can penetrate through holes and other defects in the glove material. To secure a glove to be approved as a chemical protection glove the glove shall not leak water or air when tested according to penetration, EN 374-2:2014.

DEGRADATION

The glove material might be negatively affected by chemical contact. Degradation shall be determined according to EN 374-4:2013 for each chemical. The degradation result, in percentage (%), shall be reported in the user instruction.

PERMEATION

The chemicals break through the glove material at a molecular level. The breakthrough time is here evaluated and the glove must withstand a breakthrough time of at least:

Type A – 30 minutes (level 2) against minimum 6 test chemicals

Type B – 30 minutes (level 2) against minimum 3 test chemicals

Type C – 10 minutes (level 1) against minimum 1 test chemical

Code letters	Chemical	Cas no.	Class
A	Methanol	67-56-1	Primary alcohol
B	Acetone	67-64-1	Ketone
C	Acetonitrile	75-05-8	Nitrile compound
D	Dichloromethane	75-09-2	Chlorinated hydrocarbon
E	Carbon disulphide	75-15-0	Sulphur containing organic compound
F	Toluene	108-88-3	Aromatic hydrocarbon
G	Diethylamine	109-89-7	Amine
H	Tetrahydrofuran	109-99-9	Heterocyclic and ether compound
I	Ethyl acetate	141-78-6	Ester
J	N-heptane	142-85-5	Saturated hydrocarbon
K	Sodium hydroxide 40%	1310-73-2	Inorganic base
L	Sulphuric acid 96%	7664-93-9	Inorganic mineral acid, oxidizings
M	Nitric acid^{a} 65%	7697-37-2	Inorganic mineral acid, oxidizings
N	Acetic acid 99%	64-19-7	Organic acid
O	Amoniaco 25%	1332-21-6	Base orgánica

The third row in the pictogram for Type A and B indicates which chemicals, in the table below, the glove protects against. Type C doesn't have a third row and withstand 1 chemical only for a short while.

P	Peróxido de hidrógeno 30%	7722-84-1	Peróxido
S	Ácido fluorhídrico 40%	7664-39-3	Ácido inorgánico mineral
T	Formaldehído 37%	50-00-0	Aldehído

The test chemicals are listed in the table above and all 18 chemicals shall be tested for permeation according to EN 16523-1:2015.

	General req. in en 420	Pentration (shall not leak)	Min. level 2 of 6 chemicals	Min. level 2 of 3 chemicals	Min. level 1 of 1 chemical
Type a	X	X	X		
Type b	X	X		X	
Type c	X	X			X

MICRO-ORGANISMS

All gloves must be tested against micro-organisms. The gloves are tested to protect against bacteria and fungi, but also viruses if requested, according to EN 374-5:2016.

EN421:2010

EN420:2003+A1:2009 – Requisitos básicos y métodos de ensayo
Esta prevista su revisión en año 2019 – 2020

La norma define requisitos generales:

- Diseño y construcción del guante.
- Resistencia de los materiales del guante a la penetración de agua.
- Inocuidad: pH entre 3,5 y 9,5 según EN ISO 4045/EN 1413, contenido en cromo VI inferior a 3,0 mg/kg según EN ISO 17075:2007 para guantes de cuero y proteínas extractables según EN 455-3 para guantes de caucho natural.
- Limpieza.
- Propiedades electroestáticas.

La norma define comodidad y eficacia:

- Tallas.
- Desteridad.
- Transmisión y absorción al vapor de agua.

Destreza:

Acompañamos tabla.

Destreza de los dedos	
Nivel de protección	Diámetro de la menor varilla que cumple las condiciones de ensayo (mm)
1	11,0
2	9,5
3	8,0
4	6,5
5	5,0

	Dimensiones de la mano		
Tallas	Circunferencia	Longitud	Dimensión guante Longitud mínima
6	152	160	220
7	178	171	230
8	203	182	240
9	229	192	250
10	254	204	260
11	279	215	270

EN 407:2020

EN 407:2020 – Protection against thermal risks

Pictogram for gloves where flame behavior is not tested

Pictogram for gloves where flame behavior has been tested

Ratified by the Spanish Association for Standardization in June 2020.

Main changes compared to EN407:2004:

- Extension of the scope of the standard to domestic use: oven mitten & gloves.

B - Contact heat
Change the test method. In the EN407:2004 only the palm is tested, with the EN407:2020 any other point that may come into contact.

Level of performance	Contact temperature	Threshold time (s)
1	100	≥ 15
2	250	≥ 15
3	350	≥ 15
4	500	≥ 15

C - onvective heat
Change the test method. From EN373 to ENISO9185:2007

Level of performance	Heat transfer index hti
1	≥ 4
2	≥ 7

- Gloves that achieve a level 3 or 4 of any thermal property must reach a minimum level 3 in flame spread. Otherwise, the maximum level that can be reached in the corresponding thermal property will be level 2.
- Propagation limited to flame: prohibition of hole formation. Shortening of maximum post-combustion time for level 1. Change in ignition time.
- Contact heat. Obligation to test any material that comes into contact with heat.
- Resistance to tearing. This essay is included.
- Convective heat . The test is carried out without reinforcement.
- New pictogram, for gloves that do not have flame protection.
- A minimum length is entered when resistance to small molten metal splashes is present.
- After the heat resistance tests, the samples should not show signs of melting or holes.

A - Flame behavior
Change the method and table. To carry out the test, now the ignition time goes from 15 to 10 "and the post-ignition time for level 1, goes from 20 to 15".

Level of performance	Post inflammation time	Post incandescence time
1	≤ 15	No requirement
2	≤ 10	≤ 120
3	≤ 3	≤ 25
4	≤ 2	≤ 5

F - Big splashes
Change the test method.

Level of performance	Cast iron (g)
1	30
2	60
3	120
4	300

Glove length

Size	Length
5	290
6	300
7	310
8	320
9	330
10	340
11	350
12	360
13	370

3	≥ 10
4	≥ 18

D - Radiant heat
There are no modifications. The inner layers should not show signs of fusion or have holes.

Level of performance	Heat transfer index t_3
1	≥ 7
2	≥ 20
3	≥ 50
4	≥ 95

E - Small splashes
There are no modifications. The inner and outer layers will not be able to melt or pierce.

Level of performance	Number of drops
1	≥ 5
2	≥ 15
3	≥ 25
4	≥ 35