















NITRILE GLOVES TOWA - 591S ACTIVGRIP ADVANCE KEV

Kevlar® shell with Microfinish® nitrile coating on palm





NORMATIVE



















WORKING GLOVES SUITABLE FOR:

- · Automotive industry.
- · Construction.
- · Glass industry.
- · Industrial recycling plants.
- · Management of oiled parts.
- Automatic welding machines.
- Glass assembly.

CHARACTERISTICS

- High cut resistance, resistant to contact heat (250°C for 15").
- · Suitable for use with touch screens.
- Double coating to prevent oil penetration into the palm.
- Microfinish® technology is a unique coating that disperses liquids and oils to provide exceptional grip on wet or greasy surfaces.
- The 15-gauge seamless support is made with Kevlar® and steel thread.

| MATERIALS | COLOUR | THICKNESS | LENGTH | SIZES | PACKAGING |
|-----------|----------------|-----------|-------------------------------------|-------------------|----------------------------------|
| Nitrile | Black / Yellow | Gauge 15 | S - 23 cm M - 24 cm L - 25 cm | 7/S 8/M 9/L | 12 pairs/package 72 pairs/box |
| | | | XL - 26 cm | 10/XL | Distributed by: |























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EN 388:2016+A1:2018



EN388:2016 Protective gloves against mechanical risks.

The EN388: 2003 standard is renamed EN388: 2016, the year of its revision. The reason for the modification is given by the discrepancies in the results between laboratories in the knife cut test, COUP TEST. Materials with high levels of cut produce a dulling effect on the circular blades, which undermines the result.

The new regulation was published in November 2016 and the previous one is from the year 2003. During these 13 years, there has been a great innovation in the materials for the manufacture of cutting gloves, they have forced to introduce changes in the tests to be able to measure with more rigorous levels of protection.

EN 388:2016

EN 388:2016 +A1:2018





ABCDEF

- A Abrasion resistance $(X,\,0,\,1,\,2,\,3,\,4)$ B Blade Cut Resistance $(X,\,0,\,1,\,2,\,3,\,4,\,5)$
- Tear resistance (X, 0, 1, 2, 3, 4)
- D Puncture resistance (X, 0, 1, 2, 3, 4) E Cutting by sharp objects ISO 13997 (A, B, C, D, E, F)
- F Impact test complies / does not comply (It is optional. If it complies, put P)

| En388:2016 performance levels | 1 | 2 | 3 | 4 | 5 |
|-----------------------------------|-----|-----|------|------|-----|
| 6.1 abrasion resistance (cycles) | 100 | 500 | 2000 | 8000 | 101 |
| 6.2 blade cut resistance (index) | 1,2 | 2,5 | 5 | 10 | 20 |
| 6.4 tear resistance (newtons) | 10 | 25 | 50 | 75 | - |
| 6.5 puncture resistance (newtons) | 20 | 60 | 100 | 150 | 151 |

| Eniso13997:1999 performance levels | Α | В | С | D | Е | F |
|------------------------------------|---|---|----|----|----|----|
| 6.3 tdm: cut resistance (newtons) | 2 | 5 | 10 | 15 | 22 | 30 |

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Pictogram for gloves where it has been tested

Ratified by the Spanish Standardisation Association in June 2020.

Main changes:

- Extension of the scope of the standard to domestic use: oven mitts/gloves.
- Gloves that reach a level 3 or 4 of any thermal property must reach at least a level 3 in flame propagation. Otherwise, the maximum level that may be reached in the relevant thermal property shall be level 2.
- Propagation limited to flame: prohibition of hole formation. Reduction of maximum post-combustion time for level 1. Change in ignition timing.
- Heat by contact. Obligation to test any material coming in contact with heat. Tear resistance. This trial is included.
- Convective heat. The test is performed without reinforcement.
- New pictogram, for gloves without flame protection.
- A minimum length is introduced when resistance against small molten metal splashes is present.
 After heat resistance tests, the samples must not suffer signs of melting or holes.

| Minimum length of the tested gloves for e or f | | |
|--|--------|--|
| Size | Length | |
| 5 | 290 | |
| 6 | 300 | |
| 7 | 310 | |
| 8 | 320 | |
| 9 | 330 | |
| 10 | 340 | |
| 11 | 350 | |
| 12 | 360 | |
| 13 | 370 | |

A - Flame Behaviour

Changes in method and table. To perform the test, the ignition time now goes from 15 to 10" and the post-ignition time for level 1 goes from 20 to 15".

| Level of preformance | Post-inflammation time | Post ignition til | me |
|----------------------|------------------------|-------------------|-----------------|
| 1 | ≤ 15 | Not required | |
| 2 | ≤ 10 | ≤ 120 | |
| 3 | ≤ 3 | ≤ 25 | Distributed by: |
| 4 | ≤2 | ≤ 5 | , |

B - Heat by contact

Changes in the test method. In EN407:2004 only the palm is tested, whereas with EN407:2020 any other point that may come into contact is tested

- Contact temperature
- · Threshold time (S)























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

C - Convective heat

Changes in the test method. From EN373 to ENISO9185:2007

| Level of performance | Hti heat transfer rate |
|----------------------|------------------------|
| 1 | ≥ 4 |
| 2 | ≥7 |
| 3 | ≥ 10 |
| 4 | ≥ 18 |

D - Radiant heat

There are no modifications. Internal layers must not show signs of melting or show holes.

| Level of performance | Heat transfer rate t ₃ |
|----------------------|-----------------------------------|
| 1 | ≥7 |
| 2 | ≥ 20 |
| 3 | ≥ 50 |
| 4 | ≥ 95 |

E - Small splashes
There are no modifications. Internal and external layers may not be melted or pierced.

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

F - Large splashes

Changes in the test method.

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

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