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## REVISION OF STANDARD EN 388

MAPA PROFESSIONNEL,  
a global leader in the manufacture and development of protective gloves  
provides assistance in understanding the new standards  
and undertakes to offer a range of products which are fully compliant.



# EN 388

## Standard EN 388 : 2016

# EN 388

## MAPA<sup>®</sup> PROFESSIONNEL

This standard applies to gloves protecting against mechanical risks, including abrasion, cut, tear and puncture. It was necessary to revise the standard as the cut resistance test (Coup-test) did not allow the performance of high resistance gloves to be qualified correctly.



## The changes

### Cut resistance

#### BEFORE

The method for assessing cut resistance of glove is currently the **Couptest**. Method which measures the number of cycles (forwards and backwards) to cut a sample with a low pressure (5N /approximately 500g).



#### NOW

**The Couptest method has been made more reliable** with improved control of the blade. If the glove material dulls the blade, then the reference test becomes EN ISO 13997. **A fifth digit under the pictogram is created to indicate the cut level according to the ISO 13997 test.** If there is no dulling on the blade, the Couptest test remains the reference test; however the level of performance according to the ISO 13997 test may be reported. **MAPA Professionnel was already using a more suitable test for characterising gloves with a high resistance to cut, the ISO 13997 test.**



### Abrasion resistance

The abrasion test is done with a **new abrasive paper (Klingspor PL31B 180 grit)**, which is a **more reliable** quality paper than the one used previously.

#### BEFORE



Oakey  
Grade F2 100 grit

#### NOW



Klingspor  
PL31B 180 grit

## Protection against impacts

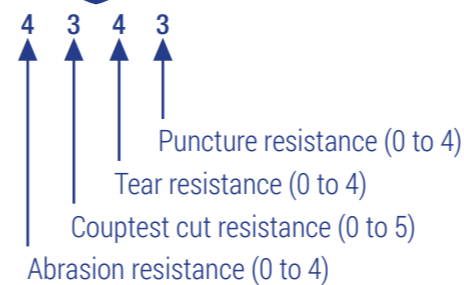
### NEW

**New test according to EN 13594: 2015 standard which allows protection against impacts to be claimed.** If the glove passes the test, the letter «P» is added after the five digits under the pictogram.

## Pictograms

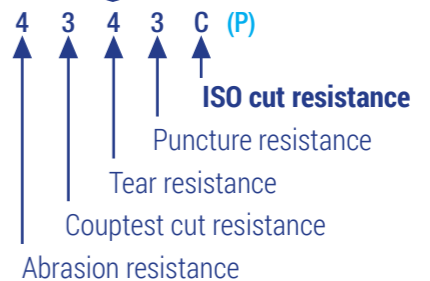
#### BEFORE

#### EN 388



#### NOW

#### EN 388



**Note:** The letter X means that the test was not performed or is not applicable.

PERFORMANCE LEVELS*					
Test	Level 1	Level 2	Level 3	Level 4	Level 5
Abrasion resistance (cycles)	100	500	2000	8000	-
Cut resistance - Couptest (index)	1,2	2,5	5,0	10,0	20,0
Tear resistance (Newton)	10	25	50	75	-
Puncture resistance (Newton)	20	60	100	150	-
	<b>Level A</b>	<b>Level B</b>	<b>Level C</b>	<b>Level D</b>	<b>Level E</b>
<b>Cut resistance according to EN ISO 13997 (Newton)</b>	<b>2</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>22</b>
	<b>Level F</b>				
					<b>30</b>

\* Values greater than or equal to...