

# THE EN388:2016 GLOVE STANDARD— WHAT THE NUMBERS MEAN

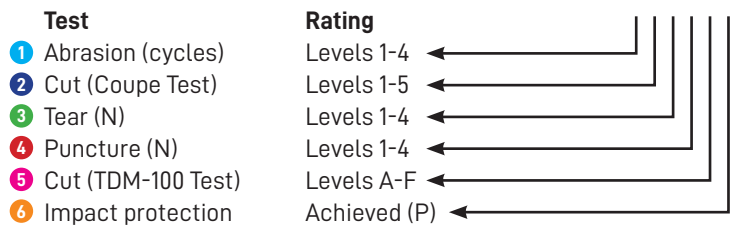


Because the EN (European Union) testing standards are so comprehensive, many countries in the Asia-Pacific region have adopted them.

The EN Standard 388 (updated in 2016) gives gloves a rating for their protection level against mechanical risks caused by abrasion, blade cut, tear, puncture and impact. Every glove is tested for its resistance to these risks and is given a rating for each, shown as a number or letter under the shield, as in the example below. The higher the number; the better the performance of the glove.



## The EN388:2016 rating system



### How the ratings are arrived at:

	Performance Class	1	2	3	4	5
1	<b>Abrasion resistance</b> —measured by the number of cycles before an abrader breaks through the glove fabric	100	500	2000	8000	-
2	<b>Cut resistance</b> —measured by the Coupe test index based on the number of cycles it takes a circular blade to cut through the test sample	1.2	2.5	5.0	10.0	20.0
3	<b>Tear resistance</b> —measured by the amount of force, in Newtons, required to tear the sample	10	25	50	75	-
4	<b>Puncture resistance</b> —measured by the amount of force, in Newtons, required to pierce the sample with a stylus	20	60	100	150	-

From 30 November 2016 some changes have been introduced to the EN regime, shown as the fifth and sixth letters below the pictogram shield. These represent an additional test for cut resistance and a test for impact resistance

	Performance Class	A	B	C	D	E	F
5	<b>Cut resistance</b> —measured by the ISO 13997 TDM test based on the number of Newtons (N) of force required for a sliding blade to cut through the material	≥2	≥5	≥10	≥15	≥22	≥22
6	<b>Impact resistance</b> —measures impact resistance at a series of strike points in the knuckle area, expressed as pass (P) or fail/not tested (no marking)	P					

Until the new EN standard has been fully phased in, the previous four-digit EN388 code remains valid for as long as the test certification of the product is current.

It is important to note also that, although the EN388 standard has been adopted outside of the EU, including New Zealand and Australia, these recent changes only apply within the EU until the new standard has been formally adopted by other countries.



The TDM100 test machine measures cut resistance of glove fabric to a sliding blade.