
Standards change.
The legendary protection of Kevlar® continues.
DUPONT
Kevlar
DARE BIGGER™

The revised EN 388 standard* has improved transparency around cut performance so you can make a more informed decision about the right glove for your application.

*EN 388:2016+A1:2018 is equivalent to ISO 23388:2018.

EN 388, the European standard for protective gloves, is recognized globally. The most significant change is the formal inclusion of the ISO 13997 cut test method, with the intent in the future to replace the Coupe test.

ISO 13997 provides more consistent, more accurate results

Although the Coupe test has been maintained, the issues of dulling have been reduced: (1) greater calibration specification; (2) maximum number of cycles without a cut. If dulling occurs, it is a requirement to test the material using ISO 13997. Otherwise, both methods are deemed equivalent; the intent with the revision was to remove the Coupe test in a future revision.

Under the revised standard, cut performance results using the TDM test method will report the levels with letters A through F to avoid confusion with Coupe test method levels 1 through 5. It is important to note that there is no correlation between the Coupe test method and the TDM test method.

Other changes include a new impact protection threshold and a change to the abrasion test.

What this means for you

Glove performance has improved significantly in recent years as new yarns and new technologies have been developed. As a result, there are more high-cut-protection gloves to choose from than ever before. The revised EN 388 standard will help you choose the right protection with greater precision and accuracy than before. The chart shown on the next page provides a comparison of the old and new pictograms, with details about the new levels A through F.

EN 388:2003

Old standard	Example
Abrasion (cycles)	Level 2
Cut (Coupe test)	Level 5
Tear (N)	Level 4
Puncture (N)	Not tested

2 5 4 X

EN 388:2016

New standard	Example
Abrasion (cycles)	Level 2
Cut (Coupe test)	Not tested or dulling
Tear (N)	Level 4
Puncture (N)	Not tested
Cut (ISO 13397)	Level E
Impact protection	Achieved

2 X 4 X E P

	Level A	Level B	Level C	Level D	Level E	Level F
TDM cut resistance (N)	2	5	10	15	22	30

Global standards comparison

Previous: ISEA 105-2011		New: ANSI/ISEA-2016		Europe: EN 388:2016	
ASTM F1790-2014 (CPPT)*		ASTM F2992-15 (TDM)		ISO 13997 (TDM)	
CPPT or TDM		TDM only			
Level	Grams	Level	Grams	Level	Newtons*
1	≥ 200	A1	≥ 200	A	2
2	≥ 500	A2	≥ 500	B	5
3	≥ 1000	A3	≥ 1000	C	10
		A4	≥ 1500	D	15
4	≥ 1500	A5	≥ 2200	E	22
		A6	≥ 3000	F	30
5	≥ 3500	A7	≥ 4000		
		A8	≥ 5000		
		A9	≥ 6000		

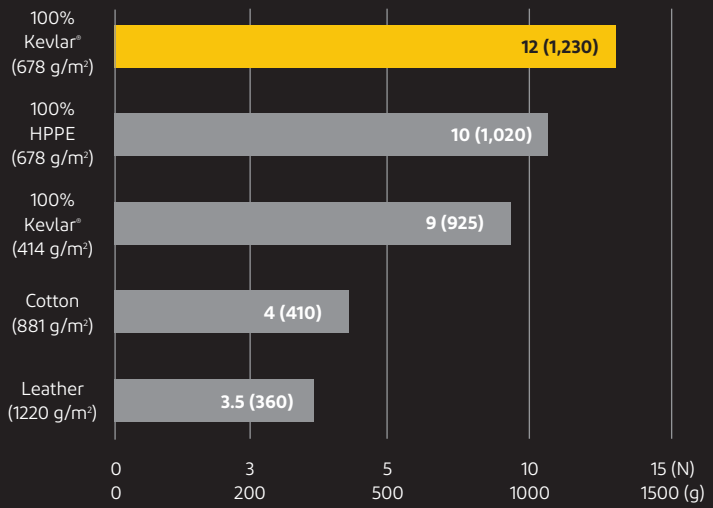
*1 Newton is equal to 102 grams of force. This means the new ANSI cut level in North America will correlate to the EN 388 cut level in Canada and Europe.

Portfolio of proven solutions

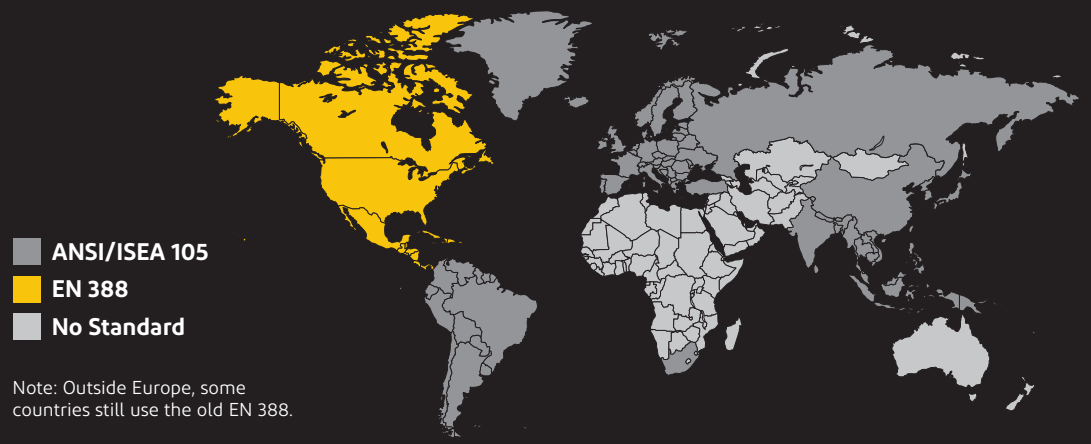
DuPont™ Kevlar® patented technology offers manufacturers the ability to make the lightest-weight, highest-performing gloves possible. And our new Kevlar® engineered yarns provide greater levels of cut, heat and durability protection than ever before.

Cut resistance of typical gloves using TDM

Kevlar® fiber has the highest cut resistance (ISO 13397 provides results in Newtons, while ASTM F2992 in grams).



Global recognition of cut standards



Note: Outside Europe, some countries still use the old EN 388.

Genuine Kevlar® for legendary protection

To learn more about EN 388, as well as recent ANSI standard changes, go to kevlar.com.

DuPont™ SafeSPEC™ offers more information and can help you specify the right glove for your application.

DUPONT Kevlar® | DARE BIGGER™

kevlar.com
safespec.dupont.com