



Personal Protective Equipment

Cut Protection Selection

Memphis Gloves | Apr 14, 2017

ANSI/ISEA and EN388 Cut Levels are NOT Interchangeable.

To capitalize on today's technology and innovation, you need to understand our industry's test methods. Each test method has unique processes and testing equipment (see diagrams for more explanation). Therefore, it is difficult to make comparisons with each of these test methods and results (scores).

Understanding the ANSI/ISEA 105 Standard Specific to Cut Protection

ANSI Cut Protection Test Rating Systems

The American National Standards Institute and the International Safety Equipment Association have recently updated our industry's ANSI/ISEA 105 Standard. Effective early 2016, this updated standard will provide the criteria to better identify levels of cut protection, abrasion, puncture, chemical, heat, vibration, and dexterity. Much of our industry's attention will be directed toward enhancements in cut protection levels. These changes are necessary to help our industry move toward establishing an international test method for cut protection. The new test method designation is F2992/F2992M-15. Note going forward there will be nine (9) levels of cut protection performance as opposed to six (6) from the previous test method. Additionally, all levels will reference "A" as a prefix to identify compliance with the new standard.

ANSI/ISEA 105 (2005/2011)		ANSI/ISEA 105 (2016)	
Old Cut Level Rating	Weight (grams) needed to cut thru material*: ASTM F1790-97 or ASTM F1790-05	Weight (grams) needed to cut thru material**: ASTM F2992/F2992M-15 (20 mm of blade travel)	NEW Cut Level Rating
0	< 200	n/a	n/a
1	≥ 200	≥ 200	A1
2	≥ 500	≥ 500	A2
3	≥ 1000	≥ 1000	A3
4	≥ 1500	≥ 1500	A4
5	≥ 3500	≥ 2200	A5
n/a	n/a	≥ 3000	A6
n/a	n/a	≥ 4000	A7
n/a	n/a	≥ 5000	A8
n/a	n/a	≥ 6000	A9
* 25mm (1.0 in.) of blade travel – ASTM F1790-97 20mm (0.8 in.) of blade travel – ASTM F1790-05		** 20mm (0.8 in.) of blade travel	

Old vs. New Cut Standards Chart

Old Icons

New Icons Effective Early 2016

Watch for new test scores and product enhancements to be endorsed on our cut protection offerings as inventory is replenished.

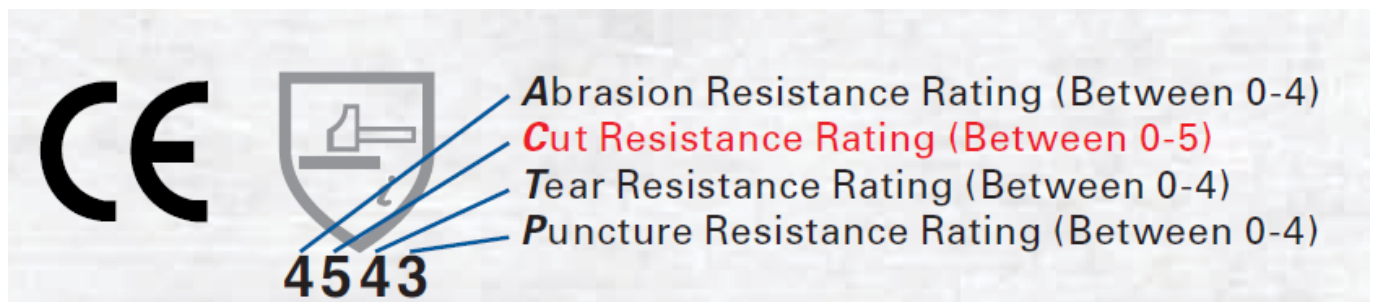
NOTE: We DO NOT Promote ANSI Level 1 or A1 for Cut Protection

Old and New Icons

Understanding the EN388 Standard Specific to Cut Protection

European Standard EN388 Changes Pending

A revised European directive to harmonize standards for PPE items and mirror more closely the ANSI/ISEA methods is pending. The most significant change would involve cut resistance test methods to more closely match the revised ANSI/ISEA 105 standard. The European Standard EN388 includes four physical tests required for gloves. Our literature and industry identifies this testing information with CE and a four digit number. Each number represents an individual test for abrasion, cut, tear, and puncture. The cut test uses a circular blade under a fixed load, moves back and forth until cut through is achieved. This is conducted on Couptest equipment and is unique to CE testing methods. EN388 or CE test results do require third party certification. Consider the acronym ACT-P as a convenient reference to remembering the four physical tests.

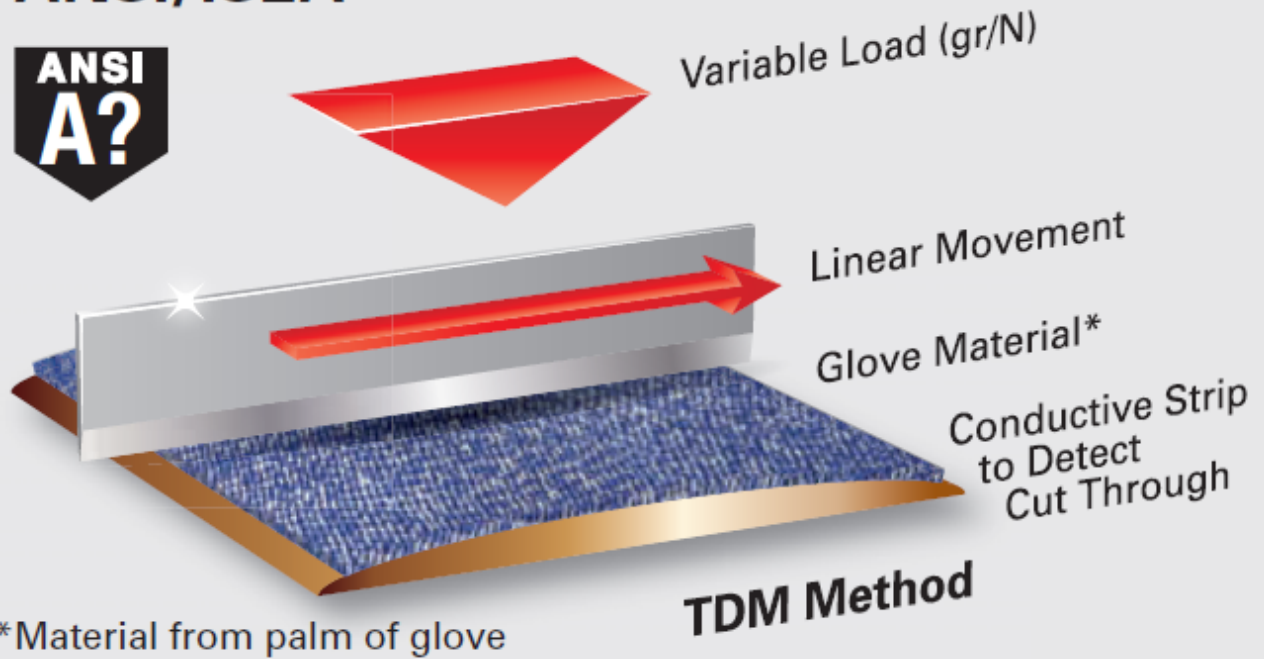


The industry identifies this testing information with CE and a four digit number. Each number represents an individual test for abrasion, cut, tear, and puncture.

Performance Level		0	1	2	3	4	5
A	Abrasion Resistance (Cycles)	< 100	100+	500+	2000+	8000+	n/a
C	Blade Cut Resistance (Index)	< 1.2	1.2+	2.5+	5.0+	10.0+	20.0+
T	Tear Resistance (Newtons)	< 10	10+	25+	50+	75+	n/a
P	Puncture Resistance (Newtons)	< 20	20+	60+	100+	150+	n/a

Performance Guide for EN 388

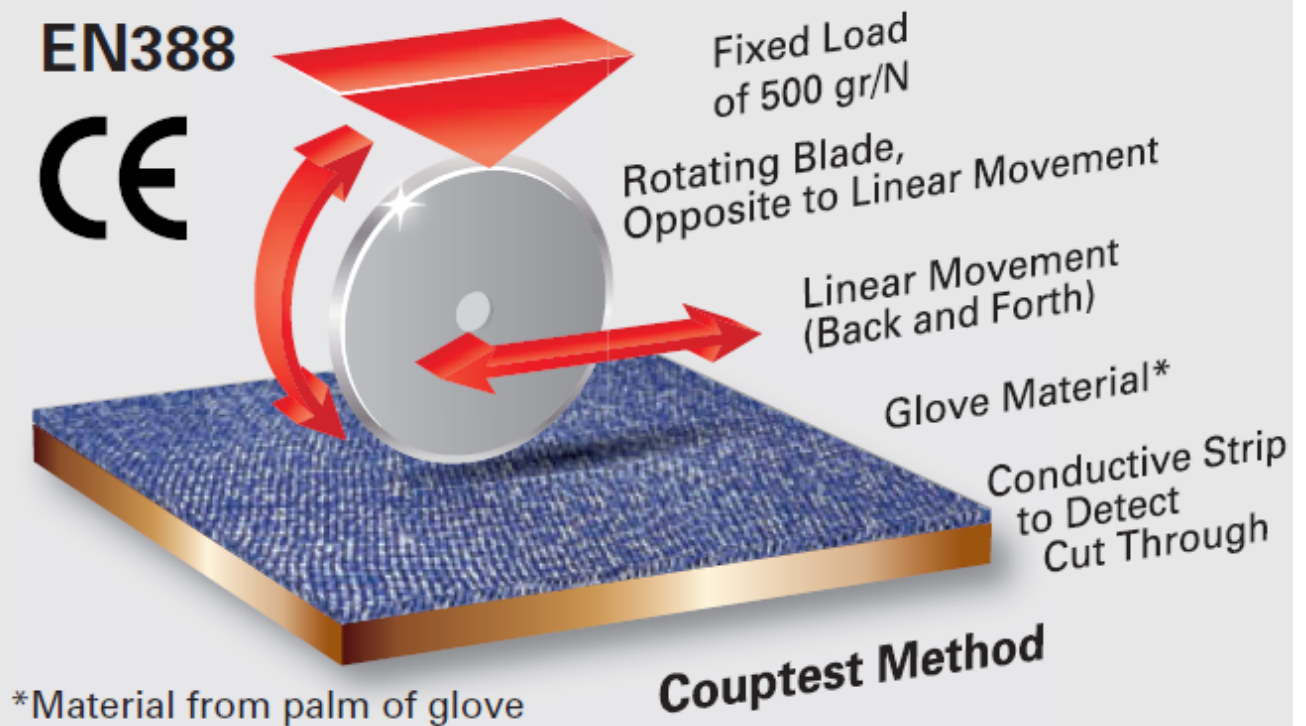
ANSI/ISEA



*Material from palm of glove

ANSI/ISEA

EN388



*Material from palm of glove

EN388