

STANDARDS & TESTING

Standardized testing of gloves ensures that the proper glove can be selected based on the hazards present. Testing includes ratings for abrasion, cut, tear, and puncture. New versions of the EN388 and ANSI/ISEA 107 standards improve cut testing to rate much higher cut levels, align cut test results between ANSI and EN cut test methods, and add ratings for impact resistance.

UNDERSTANDING THE NEW ANSI/ISEA 105 4 Revisions to the new Cut Level Standards you need to know.

1

The reason for these changes is to give users a more accurate picture as to the cut resistance level of their gloves. The addition of four new designations allow for greater clarification for higher cut level gloves.

2

While these changes have recently taken effect, no direct time line has been specified to have gloves tested to the new standard. However, in order to have the A# designation, previously rated gloves must be retested.

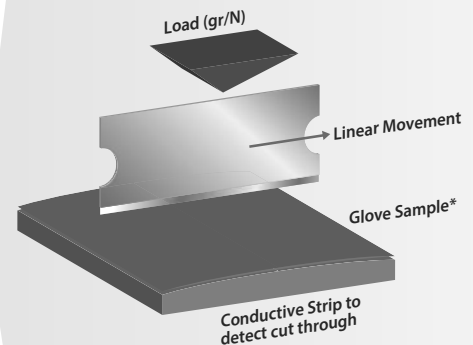
3

Although previous ANSI tests were done on a different machine, the TDM100 (depicted to the right) will be used in ANSI/ISEA 105-2016 tests. This leads to more accurate test results.

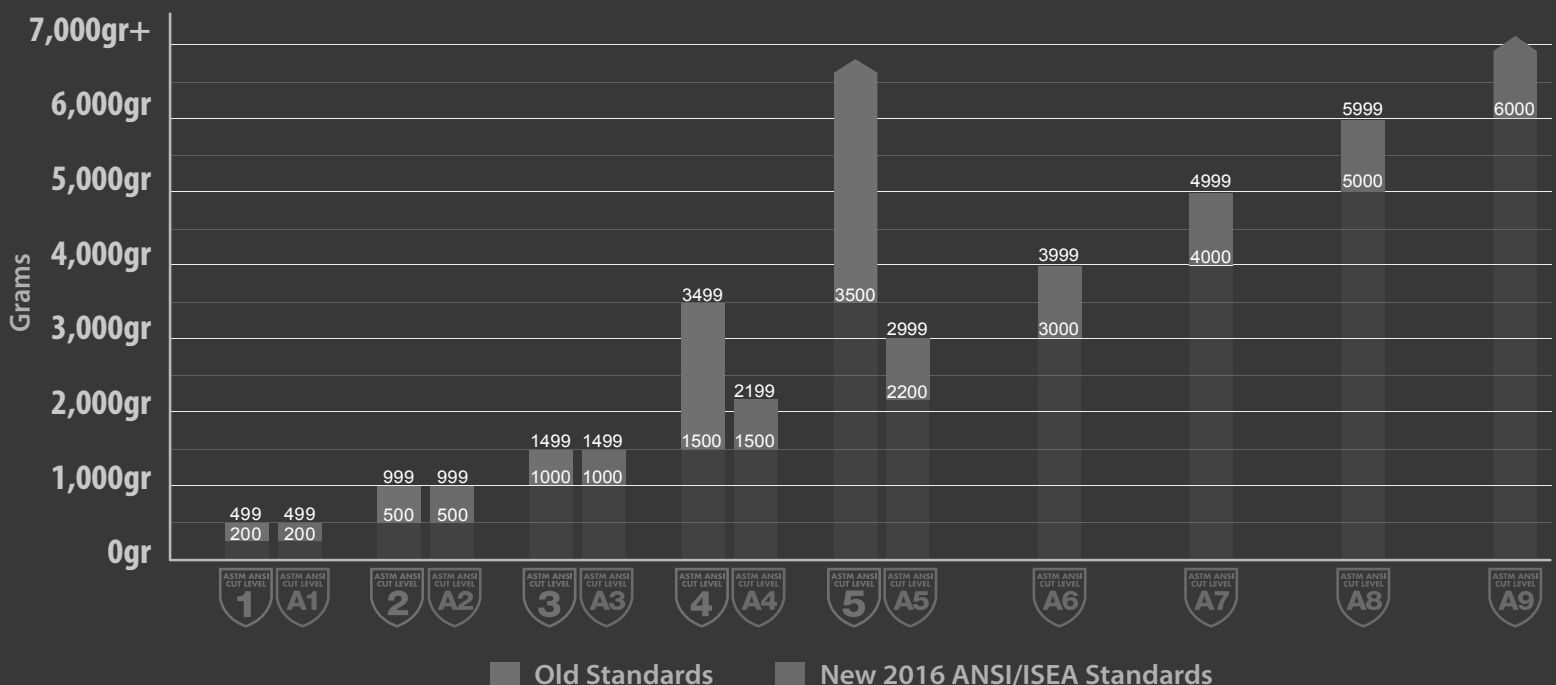
4

ANSI cut levels have increased from five to nine. In addition to the old numerical designation (1-5), the new standards incorporate the alphabetical designation (A1-A9). See the chart below for a graphic depiction of these levels.

ANSI/ISEA 105-2016



* Material sample from glove palm



Cut Level Ratings

ANSI

There are many kinds of cut hazards, and each one requires a different level of protection. Use the table below to help determine the cut level rating necessary for your work environment. ANSI has replaced the 5 point rating to 9 points as shown below.



Light Cut Hazards: material handling, assembly, maintenance, packaging, warehouse, general purpose, construction

200 - 499 grams



Medium/Heavy Cut Hazards: bottle and light glass handling, canning, dry walling, electrical, carpet installation, HVAC, paper production, automotive assembly, metal handling, metal stamping, packaging, warehouse, appliance manufacturing

3000 - 3999 grams



Light/Medium Cut Hazards: material handling, assembly, maintenance, packaging, warehouse, general purpose, construction, metal handling, appliance manufacturing

500 - 999 grams



Medium/Heavy Cut Hazards: bottle and light glass handling, canning, dry walling, electrical, carpet installation, HVAC, paper production, automotive assembly, metal handling, metal stamping, packaging, warehouse, appliance manufacturing, meat processing

4000 - 4999 grams



Light/Medium Cut Hazards: material handling, assembly, maintenance, packaging, warehouse, general purpose, construction, metal handling, appliance manufacturing

1000 - 1499 grams



Heavy Cut Hazards: bottle and light glass handling, canning, dry walling, electrical, carpet installation, HVAC, paper production, automotive assembly, metal handling, metal stamping, packaging, warehouse, appliance manufacturing, meat processing

5000 - 5999 grams



Medium Cut Hazards: bottle and light glass handling, canning, dry walling, electrical, carpet installation, HVAC, paper production, automotive assembly, metal handling, metal stamping, packaging, warehouse, appliance manufacturing

1500 - 2199 grams



Heavy Cut Hazards: bottle and light glass handling, canning, dry walling, electrical, carpet installation, HVAC, paper production, automotive assembly, metal handling, metal stamping, packaging, warehouse, appliance manufacturing, meat processing

6000+ grams



Medium Cut Hazards: bottle and light glass handling, canning, dry walling, electrical, carpet installation, HVAC, paper production, automotive assembly, metal handling, metal stamping, packaging, warehouse, appliance manufacturing

A5 2200 - 2999 grams



Light material handling, small parts assembly without sharp edges

204 - 508 grams/2 - 4.9 newtons



Light duty metal handling, appliance manufacturing, bottle and light glass handling, canning, dry walling, electrical, carpet installation, HVAC

1,530 - 2,242 grams/15 - 21 newtons



Packaging, warehouse, light duty general purpose

509 - 1,019 grams/5 - 9.9 newtons



Metal stamping, sheet metal handling, glass handling, automotive assembly

2,243 - 3,058 grams/22 - 29.9 newtons



Light duty metal handling, metal stamping, HVAC, light duty glass handling, plastics, material handling

1,020 - 1,529 grams/10 - 14.9 newtons



Heavy duty metal stamping, metal recycling, food processing, pulp and paper

3,059+ grams/30+ newtons

EN388

EN388



EN388 ratings are also noted on Radians hand protection. EN388 includes more specific information about the resistance to particular types of hazards you may encounter on the job. There are five numbers listed which indicate the level of resistance to puncture, tearing, blade cut and abrasion. Look at the diagram to the left to reference which number corresponds to which hazard.

4 X 4 4 C X → Impact Test

