

ANSI/ISEA 105-2024 FOR CUT, ABRASION AND PUNCTURE RESISTANCE

ANSI/ISEA has released a new edition of the ANSI/ISEA 105 standard (2024 ed.). The changes include a new standardized glove label for easier identification of key protection levels for both distributors and end-users.



The new pentagon marking was created to simplify and standardize the identification of protective glove performance levels, including abrasion, cut, and puncture resistance (previously identified by three separate markings.) By consolidating this information into a single, easily recognizable label, it improves usability for workers and reduces the risk of selecting inadequate protection. The marking also streamlines product comparison, and ensures clarity in marketing and documentation, helping users make informed decisions quickly and accurately.



SAME SCALE TO DETERMINE CUT SCORES



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Abrasion	n Resistance	
500 GRAM LOAD		
0	< 100 Revolutions	
	n/a	
1	≥ 100 Revolutions	
	LIGHT	
2	≥ 500 Revolutions	
	LIGHT – MEDIUM	
3	≥ 1000 Revolutions	
	MEDIUM	
1000 GRAM LOAD		
4	≥ 3000 Revolutions	
	MEDIUM – HEAVY	
5	≥ 10000 Revolutions	
	HEAVY	
6	≥ 20000 Revolutions	
	EXTRA HEAVY	

Puncture Resistance PUNCTURE (NEWTONS) non-hypodermic needle			
0	< 10	Paper/Cardboard Cuts, Light Material Handling, Parts Assembly	
1	≥ 10	Light Construction, Material Handling, Parts Assembly, Packaging	
2	≥ 20	Light Construction, Material Handling, Parts Assembly, Packaging	
3	≥ 60	Construction, Light Metal Stamping, Light Glass Handling, Manufacturing	
4	≥ 100	Construction, Metal Stamping, Glass Handling, Recycling, Injection Molding	
5	≥ 100	Oil & Gas, Mining, Heavy Construction, Demolition, Manufacturing, Fabrication	

SAME SCALE TO DETERMINE ABRASION RESISTANCE

The abrasion resistance scale remains the same as previous revisions, but the 2024 standard places greater emphasis on the standardized abrasion level via the pentagon.

The scale is based on the number of cycles a glove material endures before failure, as tested under specific conditions using the Taber Abraser with a standardized abrasive material. This ensures uniformity in how abrasion resistance is measured and reported.

SAME SCALE TO DETERMINE PUNCTURE RESISTANCE

The standard continues to measure puncture resistance based on the force required to penetrate the glove material with a specified stylus, quantified in newtons (N).

In summary, the ANSI/ISEA 105-2024 standard maintains the existing puncture resistance testing protocols and performance levels but enhances user comprehension through standardized labeling via the pentagon.

WHERE WILL I SEE THIS NEW PENTAGON?

While the new pentagon marking is not required, leading hand protection manufacturers, like PIP[®], will update products, spec sheets and website listings to align with industry best practices.

WEB LISTINGS



SPEC SHEETS







Frequently Asked Questions

How does the new labeling system benefit users?

The standardized pictogram simplifies the selection process by clearly indicating protection levels, reducing confusion, and ensuring that users choose gloves appropriate for specific hazards.

Are there changes to the testing methods for abrasion, cut, and puncture resistance?

No, the testing methods and performance levels for abrasion, cut, and puncture resistance remain unchanged in the 2024 revision. The update focuses on standardizing the labeling of these protective properties.

Is compliance with the new labeling mandatory for manufacturers?

While the ANSI/ISEA 105 standard is voluntary, adherence to the new labeling guidelines is strongly encouraged to promote consistency and enhance user safety across the industry.

How should manufacturers reference the updated standard in their documentation? Manufacturers are advised to explicitly reference "ANSI/ISEA 105-2024" in their product documentation and marketing materials to ensure clarity and avoid ambiguity.

These updates aim to enhance workplace safety by providing clearer information on glove performance, facilitating better selection of appropriate hand protection in various occupational settings.



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