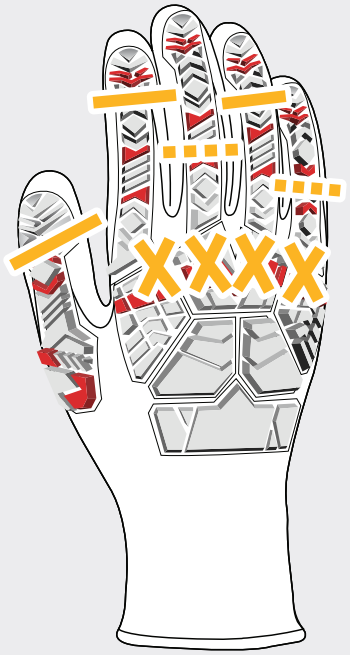
ANSI/ISEA 138 - 2019

IMPACT RESISTANT GLOVE STANDARD (2019 EDITION)

The NEW ANSI/ISEA 138 2019 Impact Resistant Glove Standard was developed to better classify the impact resistance of gloves, making it easier than ever to choose the right impact glove for any application. The new standard considers the minimum performance, classification, and labeling requirements for material protecting the fingers and knuckles from impact.

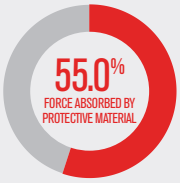
Understanding ANSI/ISEA 138-2019 Testing



25 MM FROM TIP | 50 MM FROM TIP | KNUCKLE IMPACTS

ANSI/ISEA 138-2019 outlines three levels of impact protection. Each level is determined on how effectively each glove can disperse impactful force applied during testing. The way this impactful force is created is by dropping a 2.5-kilogram mass onto each glove with an impact energy of 5 joules. This process is repeated ten times on the fingers and eight times on the knuckles. The glove's impact level will then be determined based on the Mean Transmitted Force (MTF) recorded.

It is important to note that the MTF of the finger region is treated separately from that of the knuckle region, so the lower mean transmitted force of the two regions will be used to classify the glove as a whole.



ANSI/ISEA 138 1

LOW
PERFORMANCE LEVEL

≤ 9.0 (kN)
MTF

ANSI/ISEA 138 2

MEDIUM
PERFORMANCE LEVEL

≤ 6.5 (kN)
MTF

ANSI/ISEA 138 3

HIGH
PERFORMANCE LEVEL

≤ 4.0 (kN)
MTF

Performance Level Classification

The MTF is measured in kilonewtons which means the lower the kilonewton measurement, the better the glove is dispersing the impact energy along the surface of the protective material. This helps to prevent the impact energy transmitting directly to the hand, and results in a higher-level of impact protection.

Conversely, level 1 recordings provide a higher kilonewton measurement resulting in a lower impact protection. A Level 3 performance rating results in a lower kilonewton of transmitted force to the hand, which results in better impact protection.

Performance Level	Mean Transmitted Force (MTF)	Increasing Protection
ANSI/ISEA 138 3	≤ 4kN	
ANSI/ISEA 138 2	≤ 6.5kN	
ANSI/ISEA 138 1	≤ 9kN	

EN 388 vs ANSI/ISEA 138

Previously, the EN 388 Standard was the only measurement of impact protection recorded to date that could be referenced. The European standard impact test is based on the EN13594:2015 Standard for Protective gloves for motorcycle riders. The test method is similar, but only test the knuckle impact (excluding the fingers). The EN 388 Standard classifies impact protection with a letter representation: **P** represents Pass, **F** represents Fail, and **X** represents Not Tested. If the average transmitted force is less than or equal to 7kN, then the gloves will receive a Level 1 P Pass rating. If the average transmitted force is higher than 9kN, then the gloves will receive a Level 0 F Fail rating.

The New **ANSI/ISEA 138-2019 standard** breaks down this letter representation into a numerical range of mean transmitted forces. This allows different impact resistant applications to precisely match up to the correct numerical value, or level needed for the job.

3rd Party Testing

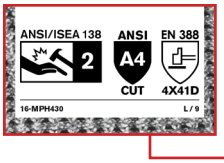
The **ANSI/ISEA 138- 2019 standard** can only be tested by independent IOS/IEC 17025 testing and calibration laboratories. This ensures all information is accurate and standardized. Before this, manufacturers had free reign on impact resistant claims, leading to unjust injury.

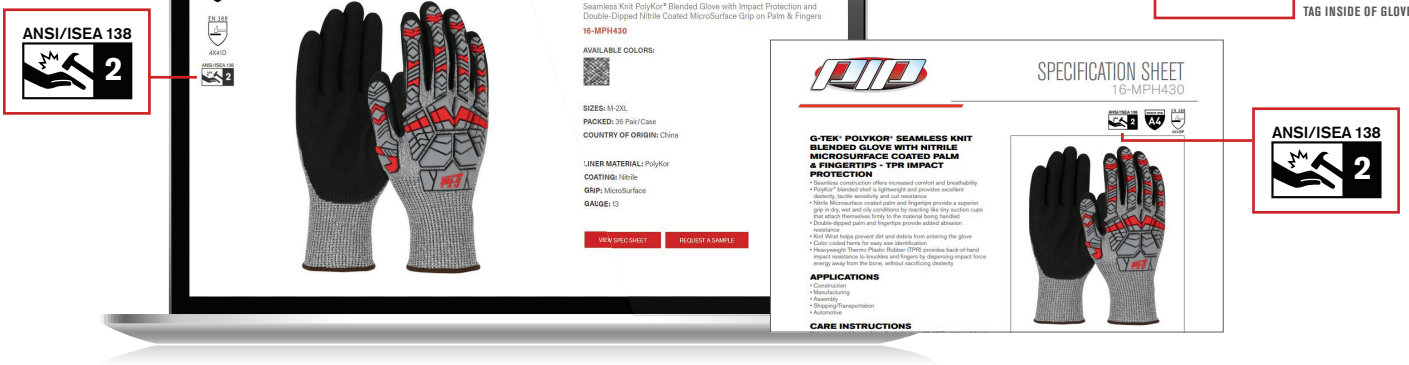
Who Needs Impact Protection?

Any heavy duty job with risk of impact injury demands certified impact gloves. But consider all gloves with impact protective material back-of-hand protection adds that extra level of safety.

Glove Markings and New Icons

PIP Impact resistant gloves will now display the ANSI/ISEA 138- 2019 symbol in accordance to its level. The symbol will be printed next to the ANSI cut score on a tag located inside of the wrist of the glove.





Like any new safety standard, understanding how it can help keep your specific workplace safe can be complex. Trust the professionals at PIP to assist you in selecting the perfect impact resistance for the job at hand. Just another way that PIP is bringing the BEST to you.

More questions? Please contact your PIP representative, or call (800)262-5755.

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