

IMPACT STANDARDS



BACKGROUND

There are many gloves that claim they provide impact resistance and are viewed equally when realistically one glove could provide you with more protection than the other. The European market released an impact standard in 2016. It only includes knuckle testing (excludes the fingers) and is rated with a Pass or Fail.

The North American market does not currently have an impact standard which is why the ISEA formed a committee to start building one that addressed the challenges with the EN388. The new ANSI/ ISEA 138 standard will help workers make an educated decision on which glove to choose which will provide them with the best level of impact protection for the job.

ANSI/ ISEA 138 IMPACT STANDARDS

- Assessment of performance : Peak Transmitted force
- Testing is done by an independent ISA T7025 Lab
- Fingers and knuckles are tested (as shown in Figure 1)
- Lowest performing areas defines performance
- 3 performance levels (higher the level indicates a greater degree of protection) (as shown in Figure 3)

TESTING METHODOLOGY

- Flat 80mm diameter striking face
- Palm side of glove removed
- Impact locations marked on glove
- Samples mounted centrally on hemispherical (100mm radius) anvil
- 2.5kg mass dropped with an impact energy of 5J
- Peak transmitted force recorded by force transducer beneath anvil
- Lower transmitted force = greater degree of protection and a higher performance level
- Impact test performed on knuckles and fingers separately

MARKING

Depending on the performance level the following pictogram will be shown on packaging and marketing material:



Figure 2

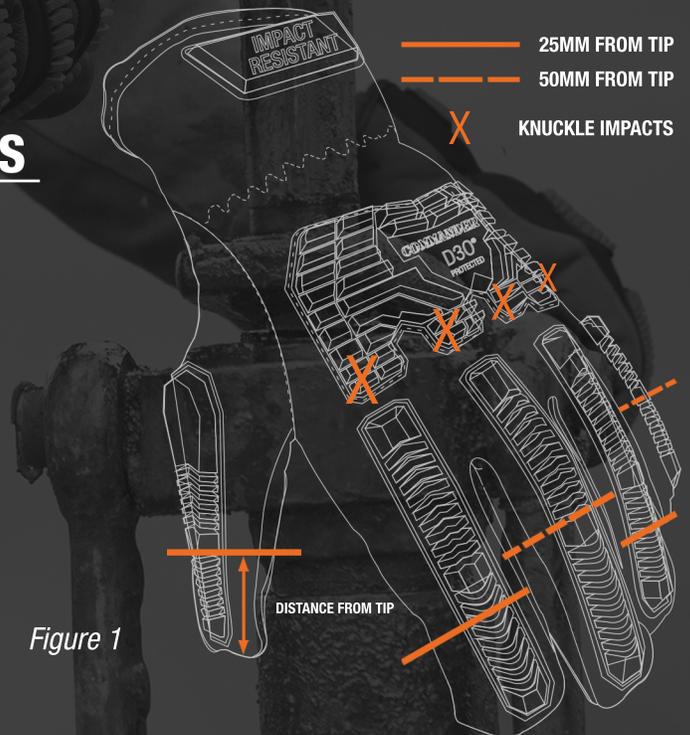


Figure 1

Performance Levels in Standard

Performance Level	Mean Transmitted Force	Increasing protection ↑
ANSI / ISEA 138  3	≤4 kN	
ANSI / ISEA 138  2	≤6.5 kN	
ANSI / ISEA 138  1	≤9 kN	

Figure 3