

# ANSI/ISEA 138

Impact Standard v20.1



**MCR SAFETY**

WE PROTECT PEOPLE



# ANSI/ISEA 138 Impact resistant test standard



Over the last decade, numerous industrial dorsal impact protection products have entered the marketplace. However, employers and specifiers have lacked consensus standards or performance test methods to benchmark the claims made by their manufacturers.

Until now, Safety and PPE procurement professionals finally have a reliable way to evaluate and assess the level of impact protection on offer.

## What is the scope of the standard?

ANSI/ISEA 138 aims to establish minimum performance, classification and labeling requirements for gloves designed to protect the knuckles and fingers from impact forces, while performing occupational tasks.

## How will this help employers?

The standard will evaluate gloves for their capability to dissipate impact forces on the knuckles and fingers and classify them accordingly. The resulting classifications can be used consistently to compare different hand protection products on an equal basis, relative to the tasks being performed.

What are the performance levels and how will an employer know a pair of gloves meets the standard?

performance level	mean (kN)	all impacts (kN)
ANSI / ISEA 138  3	<4 KN	<5
ANSI / ISEA 138  2	<6.5 KN	<8.1
ANSI / ISEA 138  1	<9 KN	<11.3

There are three performance levels, giving greater choice and flexibility to the end-user. Level 1 offers the lowest protection, level 3 the highest. Under the standard, a higher performance level indicates a greater degree of protection. A glove's overall performance level reflects the lowest performance level recorded. So if fingers and thumb meet level 1 but knuckles level 2, the glove will still be rated as performance level 1. The performance level must be visible and legible throughout the normal useful life of the glove.

To find out more, D3O has published a white paper, 'Preparing your business for the new glove dorsal impact protection standard'. You can read this at [d3o.com/isea138](http://d3o.com/isea138)



25mm from tip

50mm from tip

Knuckle Impact



## What is the testing methodology?

Flat 80mm diameter striking face

Palm side of glove removed

Impact locations marked on gloves

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





### Features and Benefits

Patented D3O® back of hand and finger protection  
D3O® is a smart elastomer that provides superior energy absorption with thinner and more flexible material. D3O® offers an average of 50% reduction in transmitted force over other materials to provide superior impact performance.

MaxGrid™ fabric reinforcing palm and fingers  
Developed to provide grip in dry, wet or oily conditions

Patented D3O® palm padding  
Shock absorption and reduction of transmitted force

Hybrid fourchettes  
Providing greater comfort and breathability

Reinforced thumb crotch  
For high abrasion resistance

Slip on expansion cuff with pull tab  
For ease of donning and doffing

ID panel for personalization  
Easily distinguish your gloves



FF2930 Sizes: M-XXL

- Patented D3O® metacarpal protection and padded palm
- MAXGrid™ reinforced palm for extra grip conditions



FF2931 Sizes: M-XXL

- Patented D3O® metacarpal protection and padded palm
- MAXGrid™ reinforced palm for extreme grip conditions
- HyperMax™ engineered cut resistant palm liner



FF2932 Sizes: M-XXL

- Patented D3O® metacarpal protection and padded palm
- HyperMax™ engineered cut resistant palm liner
- 100 gram Thinsulate™ liner, and water/wind proof bladder
- Inner elastic snow and ice cuff



# UltraTech™ Impact Level 1

ANSI / ISEA 138



UT1956 Sizes: S-XXL

- 13-Gauge CUT PRO® HyperMax™/Acrylic winter shell
- Sandy Foam Nitrile coated palm and fingers
- TPR metacarpal protection
- Reinforced thumb crotch
- Tailored for cold conditions



UT1950 Sizes: S-XXL

- 13-Gauge Nylon shell
- Sandy Foam Nitrile coated palm and fingers
- TPR metacarpal protection



UT1951 Sizes: S-XXL

- 13-Gauge HyperMax™ engineered shell
- Crinkle Latex coated palm and fingers
- TPR metacarpal protection
- Reinforced thumb crotch
- Padded Palm



UT1952 Sizes: S-XXL

- 13-Gauge HyperMax™ engineered shell
- Sandy Foam Nitrile coated palm and fingers
- TPR metacarpal protection
- Reinforced thumb crotch



UT1953 Sizes: S-XXL

- 13-Gauge HyperMax™ engineered shell
- Sandy Foam Nitrile coated palm and fingers
- TPR metacarpal protection
- Reinforced thumb crotch
- Padded Palm



# UltraTech™ Impact Level 1

ANSI / ISEA 138



**MCR**  
SAFETY



UT2953



UT1954 Sizes: S-XXL

- 13-Gauge HyperMax™ engineered shell
- Sandy Foam Nitrile coated palm and fingers
- TPR metacarpal protection



UT1955 Sizes: S-XXL

- 13-Gauge HyperMax™ engineered shell
- Sandy Foam Nitrile coated palm and fingers
- TPR metacarpal protection
- Reinforced thumb crotch
- Palm Padded



UT2952 Sizes: S-XXL

- 13-Gauge HyperMax™ engineered shell
- Foam Nitrile coated palm and fingers
- Touch screen friendly



UT2953 Sizes: S-XXL

- 13-Gauge HyperMax™ engineered shell
- Padded palm with Foam Nitrile coated palm and fingers
- Touch screen friendly



# Predator Impact Level 1

ANSI / ISEA 138



PD2903 Sizes: M-XXL

- D3O® padded palm dissipates impact and vibration
- Durable, cow grain leather palm





ANSI / ISEA 138



Predator Impact Level 1

### Features and Benefits

Just like mudslinging truck tires which protect you from hazards in the woods, grab a pair of the Predator™ powered impact gloves to face the grit-n-grind on the job site! The Predator™ mechanics gloves series is constructed with full Patented Design Tire Tread TPR on the back of the hand and thumb for comprehensive protection.

- Patented tire tread impact protection
- Hook and loop closure with ID panel
- Synthetic leather fourchettes for comfort
- Reinforced thumb crotch
- Launderable - Machine Wash, Do not machine dry



PD2901 Sizes: M-XXL

- Textured PVC coated synthetic palm



PD2907 Sizes: M-XXL

- D3O® padded palm dissipates impact and vibration
- High dexterity goatskin palm



PD2910 Sizes: M-XXL

- D3O® padded palm dissipates impact and vibration
- HyperMax™ engineered palm liner
- Durable, cow grain leather palm



# Predator Impact Level 1

ANSI / ISEA 138



PD2911





PD2906 Sizes: S-XXXL

- Textured PVC coated synthetic leather palm
- Slip on cuff



PD2911 Sizes: M-XXL

- HyperMax™ engineered palm liner
- MAXGrid™ reinforced palm for extreme grip conditions



PD2908 Sizes: S-XXL

- Premium black synthetic leather palm
- Red silicone tire tread pattern grip
- Breathable fourchettes



PD2909 Sizes: S-XXL

- HyperMax™ engineered palm liner
- Premium black synthetic leather palm
- Red silicone tire tread pattern grip
- Breathable fourchettes



# ForceFlex® Impact Level 1

ANSI / ISEA 138



MO200





ANSI / ISEA 138



ForceFlex® Impact Level 1

## Features and Benefits

### HV100

The ForceFlex® mechanics gloves provide the ultimate back of hand protection while providing full flexibility and range of motion. The injection molded TPR padding on the back of hand and fingers provides full dorsal metacarpal protection. Proudly developed with the oil industry to achieve maximum protection, durability, grip, and dexterity in dry, wet or oily conditions.

### Mossy Oak®, Shadow Grass®, Blades®

MCR Safety® and Mossy Oak® Brand Camo have teamed up to bring you an amazing line up of Shadow Grass® Blades® gloves and glasses. Shadow Grass® Blades® features a precise arrangement of individual blades of grass, whether windblown, broken or bent, onto a background of thatch consisting of lesser or dead grass, to create the perfect pure grass pattern. Carefully placed shadows from the main grass arranged atop the thatch, which incorporates light to dark spots as seen in nature, creates depth that gives Shadow Grass® Blades® a realistic 3D appearance.



HV100 Sizes: M-XXXL

- DuPont™ Kevlar® with rough EVA padded reinforced palm
- Reflexite Micro-Prismatic Retroreflective Material on Both Sides of Cuff



MO100 Sizes: M-XXL

- Shadow Grass® Blades® pattern
- D3O® padded palm with touch screen finger tip



MO200 Sizes: M-XXL

- Shadow Grass® Blades® pattern
- D3O® padded palm with touch screen finger tip
- 100 gram Thinsulate™ liner, and water/wind proof bladder



# Impact Level I

ANSI / ISEA 138



MU3634K





### Features and Benefits

#### MU3634K

The top grain leather of the MCR Safety Mustang Utility field glove offers the dexterity that allows you to feel what you're working with and holds up to the abrasion better than split leather. The Mustang Series are premium brown goatskin leather featuring DuPont™ Kevlar® thread double stitched seams, shirred elastic around entire wrist, and a second layer of premium brown goatskin in the palm. Fourchette panels and wing style thumb for enhanced fit

#### 36336

This supple leather contains natural lanolin that helps create a very soft feel. Characteristics include the strongest tensile strength and excellent tactile sensitivity. The best combination of flexibility and comfort. The 36336 series features select grade grain brown goatskin leather, shirred elastic back, and keystone thumb. The padded palm provides greater comfort and impact/vibration reduction the palm. The 36336 features a unique oil blocking technology for use in oily environments.



&lt;DUPONT&gt;

**Kevlar.**

MU3634K Sizes: M-XXL

- Lined with DuPont™ Kevlar®
- Double layer of goatskin in palm
- Shirred elastic around entire wrist
- Wing style thumb



&lt;DUPONT&gt;

**Kevlar.**

36336 Sizes: M-XL

- Oil Block Technology
- Padded Palm
- Keystone thumb



&lt;DUPONT&gt;

**Kevlar.**

36336K Sizes: M-XL

- Lined with DuPont™ Kevlar®
- Double stitched with Kevlar® thread
- Oil Block Technology
- Padded Palm
- Keystone thumb



# Impact Level I

ANSI / ISEA 138



36136HP





ANSI / ISEA 138



Impact Level 1

### Features and Benefits

MCR Safety strives to create the most comfortable and durable leather products on the market. The 36136 Series is made with goatskin that provides extreme comfort and dexterity. This supple leather contains natural lanolin that helps create a very soft feel. Characteristics include strongest tensile strength and excellent tactile sensitivity. Best combination of flexibility and comfort. The 36136 Series features select grade grain goatskin leather, shirred elastic back, and keystone thumb. The TPR on the back of the glove will assist with impact and achieves a Level 1 ANSI impact rating.

- Select Grain Goatskin for all day comfort
- TPR metacarpal protection
- ANSI Impact Level 1 TPR on back of hand, fingers and thumb
- Shirred elastic back
- Keystone Thumb



36136 Sizes: M-XL

- Unlined for excellent sense of touch



36136HP Sizes: M-XL

- HyperMax™ engineered liner offering 360° cut protection



36136KDP Sizes: M-XL

- DuPont™ Kevlar® liner offering 360° cut protection
- Sewn with DuPont™ Kevlar® thread
- Double Palm padding



**Impact Level 1**

ANSI / ISEA 138



**1**



48406K





ANSI / ISEA 138



Impact Level 1

#### 48406 Series Welders

This MCR Safety Welding option is made of premium grain goatskin. This supple leather contains natural lanolin that helps create a very soft feel. Characteristics include strongest tensile strength and excellent tactile sensitivity. Best combination of flexibility and comfort. The 48406 Series are Mig/Tig gloves with a 5" russet split cowskin cuff for additional safety. Sewn with DuPont™ Kevlar®, has a Keystone thumb and a self-hem sewn cuff. The TPR back offers excellent impact resistance on the fingers and back of the hand.

- Premium grain goatskin leather
- Sewn with DuPont™ Kevlar® thread
- ANSI Impact Level 1 TPR on back of hand, fingers and thumb
- 13" total length including a 5" brown split cow leather cuff
- Keystone thumb
- ANSI Contact Heat, 3 - Less than 392°F



«DUPONT»

Kevlar.



48406 Sizes: M-XL



«DUPONT»

Kevlar.



48406K Sizes: M-XL

- Lined with DuPont™ Kevlar®



«DUPONT»

Kevlar.



48406T Sizes: M-XL

- 100 gm Thinsulate lined



# Impact Level 1

ANSI / ISEA 138



## Ninja® Alchemy

MCR Safety Ninja® gloves are engineered to provide the highest level of innovation. Each of the offerings in the Ninja® series include a unique shell and polymer combination incorporating the latest in hand protection technology. Our Ninja® Glove Line offers the greatest assortment of dexterity, sense of touch, and protection. The MCR Safety® Ninja Alchemy N2658HVO is a 14" fully coated PVC glove with TPR on the back of the hand. The Alchemy is made with fluorescent orange double dipped PVC on 15-gauge nylon shell. The TPR provides excellent protection for the back of the hand. The N2658HVO achieves an ANSI level 4 for abrasion.

- Chemical Resistant\* and Waterproof, Hi-Vis Multi-Dipped PVC with Excellent Grip and 14" Length
- Back of Hand Protection on Ergonomic Curved Fingers
- ANSI/ISEA 105-2016 Abrasion Level 5
- EN374-3 Biohazard Testing Against Bacteria
- Seamless Knit 15-Gauge Nylon Shell
- Gloves are to be hand washed using a mild detergent solution then rinsed with clean water. Air dry.



N2658HVO Sizes: M-XXL

- PVC double coated with 15-gauge nylon shell
- 14" gauntlet cuff
- Sandy finish



**1760 Big Jake®**

Big Jake® gloves, the ultimate in leather hand protection, are used in heavy duty and rugged environments and made tough for the toughest of jobs! Constructed of Heavy Select Premium A+ side split cow leather and sewn with DuPont™ Kevlar®, these bad boys will help you work through the roughest situations. The Big Jake® 1760 features a full leather back, 4.5" rubberized safety cuff with a hook and loop cuff closure and TPR back of hand protection. Go Big with Big Jake®!



1760 Sizes: M-XXL

- Sewn with super-strong, heat resistant DuPont™ Kevlar® thread
- TPR back of hand provides ANSI level 2 impact protection
- Full leather back
- 4.5" rubberized safety cuff
- Hook and loop closure on palm side of cuff
- Absorbent fleece palm lining



**For direct access to MCR Safety's PPE check out the following links:**

**Direct Product Pages**

**Gloves ----- <https://www.mcrcsafety.com/safety-equipment/gloves>**  
**Glasses ----- <https://www.mcrcsafety.com/safety-equipment/glasses>**  
**Garments ----- <https://www.mcrcsafety.com/safety-equipment/garments>**  
**FR Clothing ----- <https://www.mcrcsafety.com/safety-equipment/fr-clothing>**  
**Welding Clothing ----- <https://www.mcrcsafety.com/garments/welding>**  
**Hi-Vis Clothing ----- <https://www.mcrcsafety.com/garments/hivis>**

**Protection Pages**

**Cut ----- <https://www.mcrcsafety.com/cut-protection>**  
**Impact ----- <https://www.mcrcsafety.com/impact-protection>**  
**Anti-Fog ----- <https://www.mcrcsafety.com/glasses/technology/max6>**  
**Anti-Fog & Anti-Scratch ---- <https://www.mcrcsafety.com/glasses/technology/max36>**  
**Flame Resistant ----- <https://www.mcrcsafety.com/frc>**

