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?

<table>
<thead>
<tr>
<th>performance level</th>
<th>mean (kN)</th>
<th>all impacts (kN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSI/SEA 138 Level 3</td>
<td>&lt;4 KN</td>
<td>&lt;5</td>
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<tr>
<td>ANSI/SEA 138 Level 2</td>
<td>&lt;6.5 KN</td>
<td>&lt;3.1</td>
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<tr>
<td>ANSI/SEA 138 Level 1</td>
<td>&lt;9 KN</td>
<td>&lt;11.3</td>
</tr>
</tbody>
</table>

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

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
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
UltraTech™ Impact Level 1

13-Gauge HyperMax™ engineered shell
Sandy Foam Nitrile coated palm and fingers
TPR metacarpal protection
Reinforced thumb crotch
Padded Palm
UltraTech™ Impact Level 1

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

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
Predator Impact Level 1

PD2903
Sizes: M-XXL

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

**PD2907** Sizes: M-XXL
- D3O® padded palm dissipates impact and vibration
- High dexterity goatskin palm

**PD2907** Sizes: M-XXL
- Textured PVC coated synthetic 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
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

MCR SAFETY
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-XXL
- 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
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.
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

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
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
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.

Ninja® Alchemy

- 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

*Please visit www.mcrsafety.com for permeation data
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.mcrsafety.com/safety-equipment/gloves
Glasses ------------------------------- https://www.mcrsafety.com/safety-equipment/glasses
Garments ----------------------------- https://www.mcrsafety.com/safety-equipment/garments
FR Clothing -------------------------- https://www.mcrsafety.com/safety-equipment/fr-clothing
Welding Clothing --------------------- https://www.mcrsafety.com/garments/welding
Hi-Vis Clothing ---------------------- https://www.mcrsafety.com/garments/hivis

Protection Pages

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