

**WORKPLACE**  
Material Handling & Safety

# Hand Protection

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# A Revolution in Back-of-hand Protection

By: **Andrew Shields**, Contributor

Most gloves used for industrial PPE across the construction, automotive, and oil and gas industries have back-of-hand protectors, with the vast majority made from thermoplastic rubber (TPR). Until now, there was very little manufacturers could do to change the characteristics of the compositions they were using. They could either add more plasticizer to make their gloves softer or less to make them harder, each approach having a negative effect on comfort, dexterity or level of protection.

## SUPPORTING INDUSTRIAL SAFETY STANDARDS

PPE standards enable manufacturers to determine the performance requirements for the protective products they design and the procedures to test them. They also help safety managers make informed choices about the right product for any given job.

Standards for industrial gloves that protect against cuts, punctures, abrasion and chemical exposure had existed in the U.S. for many years, but no means existed to assess the performance of PPE designed to protect against back-of-hand impact injuries.

“What is significant now is that there has been an explosion within the back-of-hand impact category in the last eight years,” says Paul Harris, VP of Product Strategy and Innovations at PPE manufacturer MCR Safety. Empowered by waves of innovation in materials technology and design, work on



a standard began in 2016 by a specialist sub-group of the International Safety Equipment Association's long-established Hand Protection Group. This comprised seven major glove manufacturers, D3O and a surgeon specializing in plastic and reconstructive hand surgery.

Published in March 2019, ANSI/ISEA 138 is the American national standard for performance and classification for impact resistant hand protection.

As with all standards, ANSI/ISEA 138 establishes minimum performance, classification and labelling requirements for occupational hand protection products. However, it goes further in incorporating performance levels from 1 to 3, clearly identified with mandatory pictograms, to aid health and safety managers in selecting the most appropriate product for a task. "These performance levels give clarity as to how much energy is being transferred through the glove," says Rodney Taylor, Global Sales and Marketing Manager for Industrial PPE at D3O.

"The revolution in back-of-hand impact performance through material advances, such as Impact Additive, have made ANSI/ISEA 138 practicable and facilitated a standard that is a game-changer in terms of PPE protection.

"The language around levels of impact protection has evolved, so we now have greater precision: Safety managers are far better equipped to navigate the hand protection landscape. They are free to choose from a ra-

nge of products competing on factors including design, durability, comfort and cost—but not on key performance characteristics."

### A PROTECTION REVOLUTION

A potentially new approach is the use of Impact Additive from D3O. This ingredient deploys advanced polymer chemistry and can be blended into existing processing and manufacturing techniques, delivering unmatched impact protection properties to traditional TPR and revolutionizing back-of-hand impact performance.

It is a completely disruptive process to be able to add impact protection to the back of a glove without altering the way in which a manufacturer processes TPR.

"This liquid additive can modify the existing properties of TPR to deliver greater impact protection while also enabling softer, thinner gloves," says Taylor.

Impact testing revealed that TPR enhanced with Impact Additive reduces transmitted force by up to 34% compared to standard TPR of the same type, thickness and geometry. This figure was consistent across a wide range of plastisol formulations and compared very favorably to an initial target of a 15% reduction.

### MORE PROTECTION, LESS BULK

Previously, glove manufacturers could only use impact protection as bumpers sewn onto

their products. Now, additional impact protection can be included in their formulation, with no change to design or manufacturing processes and no disruption to the manufacturer's supply chain.

Because it is added to the plastisol and is very easy to mix, there is no need to use any special equipment outside of the traditional TPR manufacturing process.

As well as delivering an increase in impact performance of up to 34% with no increase in bumper thickness, the use of Impact Additive reduces the hardness of TPR bumpers by up to 18%. This, together with improved temperature stability in extreme hot and cold conditions, delivers greater dexterity and comfort without compromising on performance—critical factors to ensure worker compliance.

In addition, because the new additive is easily blended with existing plastisol during production, intricate molding designs can also be achieved to improve the look and feel of new gloves.

Future opportunities for such protection could include other applications where TPR is used, both industrial gloves and other types of gloves that have TPR elements on them.

*Andrew Shields is an award-winning Journalist and Editor for D3O, available at <https://www.d3o.com>*



# The Story of Superior Glove

Many people think that at Superior Glove we're passionate about gloves, but the truth is, we are passionate about hands. We recognize the value of your hands and most importantly, understand the true cost of an injury. When we design our safety gloves, we not only think about the task you'll be performing, but also all the other important tasks you'll need your hands for – such as holding your child's hand – and we build all our gloves with that in mind.

Our story begins over 100 years ago, in the middle of the 'leather rush' of the early 20th century. At that time Acton, Canada was home to several tanneries, which the Acton Glove Factory relied on for material to develop its gloves. In 1961, a young entrepreneurial employee named Frank Geng saw a better way to do things and bought the company, renaming it Superior Glove Works (Superior Glove).

A tanner by trade, Frank Geng built Superior Glove on the tenets of innovation, quality workmanship, and family values. Known for dedication to his craft and his ability to solve problems, he grew Superior Glove by never leaving a problem unsolved. Protecting workers was at the center of everything the company did and if workers' hands were getting hurt, Frank Geng would work tirelessly to design and manufacture a safety glove to keep them safe.

Today, Superior Glove has grown well beyond its humble beginnings yet still maintains those same founding business principles of innovation, quality workmanship, and family values. With operations in Acton, Buffalo, Newfoundland, and Honduras, Superior Glove is a truly global company serving myriad industries and offering over 450 different styles of safety gloves, sleeves, and accessories.

Superior Glove is now led by Frank Geng's sons, who also embody his passion for innovation and dedication to craftsmanship. As such, Superior Glove has become world-renowned for excellence and innovation in cut-resistant gloves. By combining old-school craftsmanship with modern engineering, Superior Glove was able to engineer high-performance yarns that not only provide industry-leading cut protection but also are comfortable to wear and dexterous enough to work in.

However, our leadership in innovation doesn't stop at our cut-resistant gloves; our line-up is full of leading-edge gloves designed to protect against all manner of hazards and working conditions. To ensure our customers receive the absolute best in hand protection, we created an in-house testing lab to test our gloves' efficacy on everything from impact resistance to thermal protection. When you buy a Superior glove, rest assured that the quality and protection you're promised is the quality and protection you get.

To learn more about Superior Glove or to check out our line-up of industry leading safety gloves, please visit [www.superiorglove.com](http://www.superiorglove.com). For your interest, we've highlighted some of our newest innovations below – maybe one is just what you've been looking for!

**Metal Head:** These first-of-their-kind nitrile disposable gloves are unlike anything you've ever seen. Infused with metal, these gloves are metal-detectable – combining the strength and tear-resistant properties of a nitrile glove with the peace of mind that comes with a metal-detectable glove.

Learn More: [www.superiorglove.com/MetalHead](http://www.superiorglove.com/MetalHead)

**The Shield:** Despite half of all nail gun injuries impacting the hands and fingers, there has never been effective hand protection for nail guns – until now. Built specifically as a barrier to mitigate the damage done to hands due to human or mechanical malfunction of nail guns, The Shield is the industry's first hand protection offering for nail gun operators.

Learn More: [www.superiorglove.com/TheShield](http://www.superiorglove.com/TheShield)

**Extreme Cut Protection:** If you think it's impossible to get extreme cut protection in a comfortable, dexterous glove you need to take a look at Superior's new extreme cut gloves. Available in leather or string-knit, these comfortable, form-fitting gloves may not look like much protection against cuts, but both have passed testing at the industry's highest level of cut protection, ANSI Level A9.

Learn More: [www.superiorglove.com/ExtremeCut](http://www.superiorglove.com/ExtremeCut)





# IN A SUPERIOR WORLD, ALL WORKERS COME HOME SAFE

At Superior Glove, our vision is to be a driving force in eliminating workplace injuries through education and the intelligent design of innovative safety apparel. We envision a world without workplace injuries, where all workers come home safe, every day.

Visit [superiorglove.com/GloveSelector](https://superiorglove.com/GloveSelector) to discover our vast selection of safety gloves and find your perfect fit.

CUT RESISTANT

#378CXGOB



PALM COATED

#S18TAFGFN



CHEMICAL

#S15KGVNVB



WINTER

#SNTAPVCFB



PUNCTURE RESISTANT

#HPNG





# The Secret to Form-Fitting, Cut-Resistant Gloves

By: **Corenne Taylor**, *Superior Glove*

Many of today's most cut-resistant gloves look anything but—they're slim, form-fitting and able to help fend off cuts and lacerations in the most hazardous of occupations. But isn't that counterintuitive? You would expect better cut protection to come with a thicker, less dexterous glove and not the comfortable, fits-like-a-glove options available today.

## WHAT'S THE SECRET?

In Medieval times, if you wanted to protect yourself from sharp edges (most notably, your enemy's sword), you would need to dress head-to-toe in chain mail; a cumbersome garment that could weigh at least 20lbs and made it extremely difficult to maneuver. Fast-forward 500 or so years, and cut protection has come a long way. You can still find chain mail gloves (typically in industries where the utmost cut protection is needed), but the options for thin, comfortable gloves also offering cut protection are boundless.

The secret is in the science. Instead of relying on one strong fiber, today's best cut-resistant gloves are made from yarns engineered to incorporate the benefits of two or more components. For instance, high-strength yarns, such as Kevlar®, Dyneema® and TenActiv™, can be combined with elements, like fiberglass or steel, to create an engineered yarn with unparalleled cut protection.

"Adding steel to a high-performance yarn is like reinforcing concrete with steel rebar," said Tony Geng, President of Superior Glove. "It is making something that's already strong even stronger."

There are four factors that influence the cut resistance of knitted gloves:

- **Strength:** Examples of high-strength yarns include TenActiv™ and Kevlar®
- **Hardness (dulling):** An example of a hard yarn is stainless steel, which is a popular option in engineered yarns
- **Lubricity (slickness):** Yarns such as TenActiv™ are "slippery," allowing a blade to slide over the surface without cutting through
- **Rolling action (knit construction):** Most knit gloves will allow the different yarns to roll as a sharp edge slides over, creating a "ball bearing effect" where the sharp edge slides across without cutting through the material

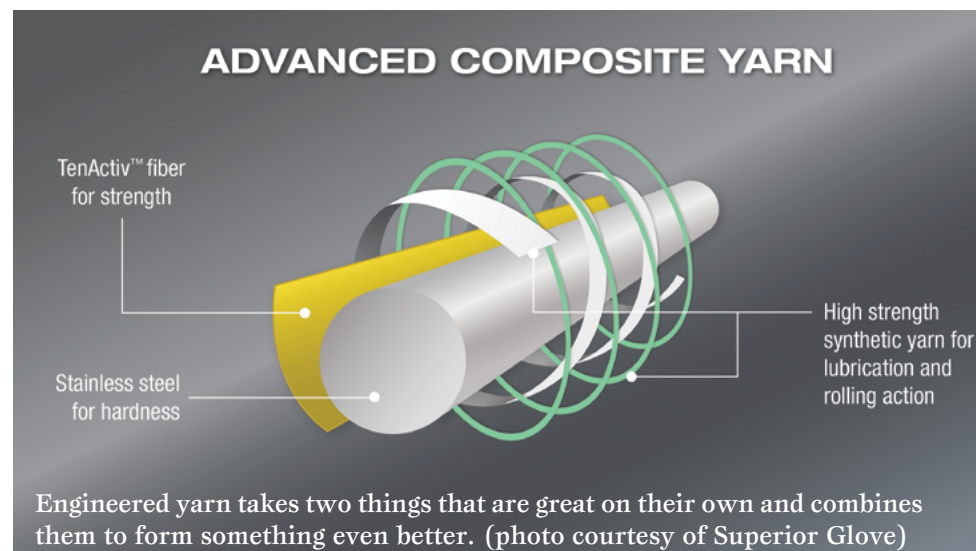
Much like cookies n' cream and peanut butter and jelly, engineered yarn takes two things that are great on their own and combines them to form something even better. The more of the above-named four factors that can be engineered into a yarn, the more cut resistant it will be.

Hand injuries are the second most-common workplace injury, right after back injuries. In almost 40 % of cases, hand injuries were a result of cuts or lacerations; and, in 70 % of cases, a hand injury occurred because the person wasn't wearing gloves.

Gloves made from engineered yarns are perfect for industries such as pulp and paper and metal stamping, where both a high level of cut protection and dexterity are required. Many hand injuries occur when workers remove their gloves to perform a task required for their job that couldn't be performed wearing the gloves. This is where gloves made from engineered yarn truly outperform, as the dexterity and comfort of the gloves allow them to be worn through all tasks, all day long. Without the need to remove their gloves, workers will be better protected against injury.

There you have it: the "secret" to how form-fitting gloves can provide high levels of cut protection. It's not magic; it's simply science and a little ingenuity!

As a leader in cut-resistance innovation, check out Superior Glove's website ([www.superiorglove.com](http://www.superiorglove.com)) to view the vast selection of cut-resistant gloves and find your perfect pair.



# Reducing the Impact

By: **Barbara Nessinger**, *Chief Editor*

Until this past year, there had been no commonly agreed performance standard or test method in North America for dorsal (back of hand) impact protection. This lack of any objective performance standard created a serious challenge for employers responsible for selecting appropriate PPE for industrial workers. In fact, according to OSHA, of the 145,000 recordable injuries in today's workplace and government agencies, 63% are made up of cuts; 18% are due to crush and bone breakage. These numbers present a tremendous opportunity for improvement.

Although many PPE manufacturers produce a wide range of protective gloves with new designs and materials constantly entering the market, there had been either little differentiation between the materials used for impact protection, or performance claims couldn't be readily validated.

Finally, now, in the U.S., leading glove manufacturers and material suppliers have collaborated to develop new, voluntary standards from the International Safety Equipment Association—ISEA, an American National Standards Institute-accredited standards developing organization.

The ANSI/ISEA 138 standard is specifically designed for industrial gloves and the special protections they offer. The defined ISEA 138 levels give greater choice and flexibility to the end-user. Scaled performance levels help employers make a choice that meets the needs of their workforce, giving them the confidence to choose protective gloves that are both appropriate to potential risk and hazard levels.

Since no back-of-hand impact standard previously existed for the U.S., ISEA 138 can also help identify the styles that could put workers at greatest risk of injury—as well as those that offer the best protection.

Once a specifier carries out a risk assessment on a job site, they can determine what level of impact protection the workers require. ISEA 138 allows the specifiers to select a protection level to look for when buying gloves. By being able to specify this level, the worker will consistently get the protection they need.

## RAISING THE BAR

For glove manufacturers, this means product development can be focused on meeting exact needs as opposed to perceived needs. It also means that the level of impact protection within the glove industry will improve—hopefully to reduce the number of injured workers. Having an actual metric challenges glove-makers to make their protection even better.

The bones and tissues in the back of the hand are vulnerable to impact injuries, which are common in the offshore oil and gas, construction, mining, manufacturing, warehousing and transport industries. Impact-related injuries range from bruised knuckles, to pinching fingers between two pieces of equipment, to severe bone fractures.

Some things to consider when purchasing gloves for manufacturing or construction use:

- Impact-resistant work gloves have unique protective features, such as Thermoplastic Rubber (TPR) or Thermoplastic Elastomers (TPE), and proprietary foams that shield the top of the hand from unexpected impact, smashes, crashes and abrasion injuries.
- Soft, flexible, shock-absorbing pads can be strategically placed along the back of the hand for maximum cushioning, while not interfering with how the hands function.



Photo courtesy of Superior Glove

- Another feature to consider is the level of impact dissipation. Many gloves can claim high levels of impact dissipation for both back of hand and for the fingers.

When looking at a pair of high-impact gloves, notice that the gloves are constructed with a durable outer shell made up of sections of raised solid, rubbery material that is affixed to the glove. These rubber segments cover the back of the hand and usually all of the fingers. They are strategically placed to protect the wearer from impact in the spots it naturally occurs.

Glove styles available in the industry include dorsal impact-reducing gloves. Some feature molded rubber, combined with technical foams for maximum protection. It is important that the glove still maintains necessary dexterity, however. Many companies' lines include hi-vis color schemes for signaling and hand-safety awareness, taking the guesswork out of purchasing.

The TPR gives the glove a segmented look. Along with providing superb high-impact protection, TPR improves hand movement—since those segments are free to move and bend flexibly.

High-impact work gloves are meant to be beneficial across the board in different industries, so most are also engineered with a high level of grip on the palm because of a hefty palm coating. This is especially useful in manufacturing and construction, where tool usage and dexterity/grip are important.



# Glove Recycling: Stay Safe, Stay Green

By: **Jon Chisholm**, General Manager, Closed Loop Recycling

Safety is non-negotiable in the workplace, and unfortunately, personal protective equipment often winds up in a landfill after use. What if you could eliminate that waste stream; reduce company liability; and simultaneously save money? Closed Loop Recycling (CLR) is an industrial launderer of PPE, absorbents and wipers, offering the most environmentally-friendly laundering process in the country.

## PROVEN PROCESS

The company's leading-edge, award-winning process and customer service make CLR stand out in the industry. Our team is dedicated to establishing unique, custom and cost-effective solutions which meet customers' sustainability goals. No two manufacturing plants are alike. As a result, CLR offers tailored programs which are reflective of its customers' individualized needs. "We Think Outside the Drum!"

As part of CLR's PPE Laundering Program, clients are provided with labeled 55-gallon collection drums, which are used as single-stream receptacles for used PPE. Detailed plant layouts are created for our drivers to track drum locations; perform continued station-by-station consolidation; properly manage inventory; and provide service. Our customer service team will set up a detailed service strategy, custom to a company's specific needs, to pick up the used drums and deliver fresh bundles of PPE.

Once the used materials arrive at our facility, the drums are weighed to calculate the waste diversion. The items are then sorted and cleaned per the recommended care instruction; zero hazardous chemicals are used during the laundering process. From there, equipment is run through a metal-detection system to ensure the clients' employees' safety. Equipment is then inspected by hand for quality control, where torn and damaged items are removed from rotation. The clean gear is then paired and bundled by our team for the next delivery.

## BENEFITS

The industrial laundering system is designed to reduce the amount a client spends on materials, especially high-cost gloves and sleeves. On average, our PPE laundering program saves upwards of 60 % compared to buying new. Our facilities are able to process a wide variety of PPE, including Kevlar® gloves, nitrile and PU dipped gloves, string knit gloves, leather gloves, cut sleeves, FR aprons and chaps, as well as FR jackets and safety vests. Additional product laundering programs, such as reusable absorbents and wipers, are also available.

While cost savings are crucial to any business, it's also important to recognize the environmental impact your company can make. To help illustrate the environmental benefits, CLR provides each of its partners with a unique "Monthly Sustainability Report," which documents the amount of waste the company has diverted from landfills or incineration. Sustainability Reports are provided on a monthly basis at no additional cost, and can be used towards ISO14001 certification and/or Corporate Green Initiatives.

Closed Loop Recycling can also provide free training to employees, eliminating the hassle of adjusting to a new program. We offer a comprehensive classroom training program; a quick safety meeting training; or digital training materials for all end-users. Correct training in a facility can reduce cost with CLR by up to 20 %. Our team can help to identify the training that will work best for a company.

## THINK OUTSIDE THE DRUM

One of our mottos is "Let us do the dirty work." Closed Loop Recycling offers a no-risk, free trial that results in a detailed proposal for a facility. Not only do we provide the collection container and transit, we will launder the items free of charge and return them to the facility with a per-pair quote.

We offer two trial options accommodating any company's needs:

1. Trial Bag: CLR will send out a bag that holds approximately 100 pairs of gloves. Once the bag is filled with used PPE items and sealed, CLR will provide a pre-paid shipping label for transit back to our facility. Once processed, CLR will return the laundered items with a per-pair quote.
2. Collection Drum: CLR will provide a collection drum with signage that holds approximately 400 pairs of used gloves. Once full, CLR will pick up and provide transit back to our facility. After processing, CLR will return the items with a per-pair quote.



Photo courtesy of  
Closed Loop Recycling

Headquartered in St. Louis, Mo., Closed Loop Recycling (CLR) specializes as an industrial launderer of reusable absorbents, wipers and PPE. CLR's legendary service and award-winning process for turning three waste streams into three reusable products help companies achieve green initiatives and critical waste reduction goals such as Zero Landfill and ISO14001 certification. To learn more about CLR's Recycling Solutions, please visit [www.closedlooprecycling.us](http://www.closedlooprecycling.us) or call 888-USED-OIL.

# The Next Generation of Gloves

The next generation of gloves requires the next generation in manufacturing. MCR Safety's brand new state-of-the-art manufacturing facility opened in 2019. Under the NXG™ brand, our new manufacturing facility produces premium gloves with advanced coatings, utilizes 21st-century manufacturing efficiencies, and does so with environmentally friendly production methods.

The best way to visualize what NXG™ means is by remembering three words: **Product, Process, and Planet.** We explore each one of these separately below.

**Product:** Workers demand premium PPE products on the job-site. Without them, employees wind up working a shift uncomfortable and less protected than they should be. From a company's standpoint, it only makes sense to outfit workers with gloves that fit, are comfortable, and last. Here are all the upgrades you can expect from NXG™ branded gloves.

- **Product Purity** - All NXG™ gloves are manufactured in 100 % enclosed environments, ensuring only the highest quality output.
- **7-Step Product Cleansing** - Ensures gloves smell fresh, with no strong chemical odors attached.
- **Increased Longevity** - Due to our new and improved proprietary dipping processes, coatings are more advanced than ever before.
- **Multiple Quality Checks** - There are quality checkpoints at multiple workstations to ensure high-quality output.
- **Polymer Adhesion** - Second to none as a result of our proprietary shell-drying techniques.
- **ANSI Testing** - Our NXG factory will mirror the current U.S. ITC lab. Our commitment to excellence

led to the ITC becoming one of the first North American testing labs to receive ISO/IEC 17025 accreditation for Hand Protection, an international standard that requires companies to demonstrate a high degree of accuracy and consistency in testing protective equipment.

**Process:** A strategy may be the road map of a business, but it is operational efficiency that drives the actual vehicle to the end customer. A business lacking fundamental efficiencies in its processes will eventually have longer delivery times and offer inconsistent quality in its services. Quality, consistency, and efficiency are the forces that go a long way in exceeding customer satisfaction levels.

- **Advances in technology** have allowed us to adopt cutting-edge manufacturing efficiencies and automate numerous operational processes. Here are a couple of the updated processes found at our new manufacturing facility:
- **Production Efficiencies** - We've streamlined our dipping machines, resulting in faster glove dipping and faster production.
- **Packaging Automation** - We've leveraged the latest technology to automatically roll and seal gloves, as well as fill glove case packs.
- **Operational efficiency and exceptional processes** are paramount for any business to function, much less survive, in the 21st century. Companies that are not focused on reducing waste and consuming fewer resources will likely not remain in business for very long.

At MCR Safety, we've invested in the latest manufacturing equipment, ensuring increased glove production that relies on fewer resources, utilizes automation, and

reduces overall waste. Without these enhancements, our next point is in no way achievable.

**Planet:** MCR Safety is committed to protecting workers' hands and to protecting the planet. We recognize that being a manufacturer comes with a big responsibility, as we engage in activities that consume many resources and our decisions impact generations to come.

For some time now, global environmental sustainability has been at the core of how MCR Safety has done business. From offering recycled PVC in our gloves and garments to developing products made with sustainable bamboo materials, we are working to reduce our carbon footprint and not waste valuable resources. That is why we are building modern distribution facilities that use less energy and purchasing new eyewear equipment that reduces CO2 transmissions; we know the world is counting on us to make thoughtful decisions.

So, when it came time to outline the manufacturing components of our new operation, sustainability was at the forefront of planning the new factory's design and operations. MCR Safety's intelligent-design manufacturing is committed to sustainability in three distinct ways:

- **Zero Contamination of the Environment** - Achieved by incorporating premier water treatment and filtration systems.
- **Exhaust Gas Cleaning** - Gloves manufactured under the NXG™ brand ensure less gas is released into the ecosystem due to improved air filtering processes.
- **Clean Energy Utilization** - Our new factory relies less on electricity generated by coal, natural gas, and petroleum and more on alternative energy sources like sustainable solar and wind energy.

Learn more at [www.mcrcsafety.com](http://www.mcrcsafety.com).



# Intelligent Manufacturing

# NXG

The Next Generation of Gloves...

Product → Advanced Coatings

Process → Cutting-Edge Efficiencies

Planet → Eco-Friendly

MCR SAFETY

NXG



**MCR SAFETY**

mcrsafety.com 800-955-6887



# Beyond Gloves: Seven Things to Do to Keep Your Hands Safe at Work

Your hands are used in just about every facet of your work and daily life. But they're also one of the most exposed and vulnerable parts of your body.

Whether you spend all day writing reports and e-mails, or whether you handle materials and use construction tools after punching the clock, keeping your hands safe should be a priority.

The most obvious way to protect your hands is with the right PPE. Every worker engaged in hazardous work should wear safety gloves suitable for the job. But gloves are your last line of defense and a lot of other measures should be in place to keep your hands safe.

In this article, we'll go over seven important things you can do to keep your hands safe at work.

## 1. Conduct a Hazard Assessment and Job-Safety Analysis

Conducting a hazard assessment is the first step in identifying tasks that put our hands in danger. It allows us to take the time to review equipment for pinch points; note material that may be jagged or become splintered; identify extremely hot and cold surfaces; and list potential sources of chemical exposure.

Once it's completed, the hazard assessment should be communicated to the exposed workers on an annual and intermittent basis, in order to spread awareness and help cultivate safety culture.

A job-safety analysis (JSA) is the next step in communicating hazards to workers. These are often conducted by a foreman or supervisor, who

lists each task and provides a step-by-step process to safely execute it. The JSA should provide a methodical means to eliminate or mitigate exposure to hazards and identify when, which and where proper safety gloves shall be worn.

The JSA should be communicated and reviewed before starting each new task and intermittently after that. Workers should be encouraged to assist and comment on the JSA, as their feedback is invaluable in the creation and maintenance of this living document.

## 2. Implement Engineering Controls

Before donning safety gloves, we should ask ourselves if we can eliminate the hazards completely. If it's not possible to eliminate all hazards, then we should consider whether engineering controls could be implemented. These controls help us reduce exposure by modifying the processes, equipment and materials involved in the work.

One example of this is machine guarding. A machine guard is a protective barrier to prevent workers from making contact with hazardous energies created by moving machinery.

## 3. Mitigate Ergonomic Risks

Ergonomic risks are often overlooked because their negative effects are not immediate. But ergonomic and repetitive strain injuries are far more common than many might suspect.

Workers who regularly repeat tasks; use forceful exertion; or are exposed to



vibration and sustained awkward positions are at risk to ergonomic injuries.

Enlist an ergonomic specialist to assess your workplace and help you implement a repetitive strain prevention program.

## 4. Proper Tool Use and Care

All tools should be inspected prior to use and serviced regularly; and the workers using them should receive formal training on their proper use. Refer to owner's and operator's manuals to determine maintenance and servicing intervals.

Generally, the responsibility for inspection lies with the supervisor. However, workers



who use tools and equipment daily should also inspect them before starting their work. As soon as any problems are discovered, the tool must be removed from use and tagged. The tag should read something along the lines of “Defective–Do Not Use.”

The misuse of tools and equipment is a frequent cause of injuries. It’s often assumed that everyone knows how to use common hand tools, but this assumption can lead to injury.



Employers and supervisors have a responsibility to ensure that all workers are trained and competent in the use of the tools and equipment in their workplace. Training programs can be created internally and reviewed periodically throughout the year. They can also be communicated to new hires during orientation. Companies can

also look to external training providers to assist then in delivering training to their employees.

The training program should pay close consideration to all equipment and tools, no matter how mundane the task. Every employee, no matter how much experience or seniority they have, should be required to participate. This training is an opportunity to make sure that fundamental safe practices are fresh in everyone’s minds.

### 5. Safety Data Sheets

To help protect against exposure, employers must inform workers of the specific chemicals used in the workplace and provide access to the corresponding safety data sheets.

Employers and safety committees should make a list of controlled products onsite available to employees. The list should be reviewed and updated as new products come in or old ones exit.

The safety committee and supervisor should review the safety data sheets and draft a list of PPE required to safely handle the products.

### 6. Foster a Safety Culture

A successful health and safety program begins with a positive safety culture. Every company should encourage and promote safety from the moment a worker starts their shift right until the moment they clock out at the end of the day.

Employees respond well to a positive safety culture and well-communicated policies and programs. They are more apt to follow safe work procedures; use the PPE supplied; and report hazards to their supervisors.

With a positive safety culture, every employee—both new and seasoned—knows that safety in their workplace truly is number one. Supervisors and management should be encouraged to attend the same safety training as their workers, in order to lead by example and communicate the value of these initiatives.

### 7. Ensure Proper Housekeeping

Construction debris tends to be irregular in shape and hard to handle. It can also be full of sharp edges. Making sure it gets cleared away helps prevent injuries.

A low standard for housekeeping can wear down the morale of workers, but it can also lead to cluttered pathways impeding material handling equipment and, thus, increasing the need for manual handling.

Employers should provide ample disposal systems for the various types of debris created over the course of a regular work day. Materials should have nails, screws and sharp edges bent over or removed, and employers should promote daily post-work, clean-up tasks.

### CONCLUSION

Wearing gloves that give your hands ample protection is essential to keeping them safe. But it’s not enough. By looking beyond the glove and implementing various other measures to mitigate risks, you can be confident that you or your employees will make it through the day with their hands unharmed.

*[Editor’s note: This article originally appeared on [Safeopedia.com](http://Safeopedia.com). It has been republished here with permission.]*

# Hand Impact Protection: ANSI/ISEA 138

## HISTORY:

According to OSHA, of the 145,000 recordable injuries in today's workplace and government agencies, 63 % are made up of cuts; 18 % are due to crush and bone breakage. These numbers present a tremendous opportunity to improve and educate.

ANSI/ISEA 138 is specifically designed for industrial gloves and the special protection they offer to workers. Many people mistakenly believe hand impact injuries only affect a narrow range of industries, such as the offshore oil and gas sector, mining and construction. In reality, the market is much wider, with impact-related injuries a common danger for manufacturing, warehouse and transport workers. The bones and soft tissues in the back of the hand are all vulnerable to impact injuries, varying from bumps and bruises to severe fractures.

To date, there had been no commonly agreed performance standard or test method in North America for dorsal (back of hand) impact



Photo courtesy of Superior Glove

protection. Although many PPE manufacturers produce a wide range of protective gloves with new designs and materials constantly entering the market, there is either little differentiation between the materials used for impact protection; or performance claims can't be readily validated.

The lack of any objective performance standard has created a serious challenge for employers responsible for selecting appropriate PPE for industrial workers.

## WHY STANDARD IS IMPORTANT:

Finally, now, in the U.S., leading glove manufacturers and material suppliers have collaborated to develop new, voluntary standard from the International Safety Equipment Association—ISEA, an American National Standards Institute-accredited standards developing organization.

ANSI/ISEA 138, American national standard for performance and classification for impact-resistant hand protection, aims to improve on the somewhat limited treatment of impact performance recently incorporated into the main European hand protection standard, EN 388. That standard took its cues from an existing motorcycle impact standard for hand protection. The ISEA 138 standard, however, is specifically designed for industrial gloves and the special protections they offer. The defined ISEA 138 levels will give greater choice and flexibility to the end-user. Scaled performance levels help employers make a choice that meets the needs of their workforce, giving them the confidence to choose protective gloves that are both appropriate to potential risk and hazard levels.

The standard provides a reliable starting point to which end-users can apply all the variables affecting their specific workforce needs, including tasks, work environments, budgets, etc.

## KEY COMPLIANCE REQUIREMENTS:

- define an agreed test method;
- include defined performance levels;
- specify a pictogram mark for each of the defined levels for compliant gloves;
- and require that product be tested in a laboratory having a certificate of accreditation meeting the requirements in ISO/IEC 17025:2017, General requirements for the competence of testing and calibration laboratories.

## SPONSORED BY:

The more information people have, the better able they are to make decisions that will keep them safe. As champions of safety, Superior Glove is thrilled to see the ISEA 138 updates to current impact standards. The new standards better define anti-impact capabilities, especially when it comes to higher-impact hazards, which means improved information for those looking to protect against impact risks. Better information, better selection, better safety. ISEA 138 is a win-win for everyone! Superior Glove(R), 888-428-1210, [www.superiorglove.com](http://www.superiorglove.com)



# Keep your Gloves On And Your Hands Safe with Wells Lamont Touchscreen Gloves

Wells Lamont Industrial, a leader and innovator in hand protection and safety, introduces two new touchscreen gloves. The new touchscreen gloves were designed and engineered to provide the flexibility and protection needed for a variety of workplace applications. The touchscreen gloves combine the superior protection you expect from Wells Lamont with the dexterity and convenience required to work with technology.



**Y9214**

Keeping hands protected in the workplace includes making sure people are keeping their gloves on. Using technology has become integral to almost every job description and removing gloves to use technology is one of the most often cited reasons workers remove their gloves on the job site. Touchscreen gloves help ensure that workers are keeping their gloves on and their hands protected throughout the workday.

Wells Lamont features high-performance touchscreen gloves to keep gloves on and hands safe. Our touchscreen gloves are designed to offer the high level of protection you have come to expect from Wells Lamont Industrial combined with innovative touchscreen functionality.

Select from our Y9214 FLEXTECH Cut Resistant Sandy Nitrile Palm Coated Touchscreen Glove and our Y9215 FLEXTECH Cut Resistant Polyurethane (PU) Palm Coated Touchscreen Glove.

**Keep the Gloves On and Your Hands Safe & Order Your Touchscreen Glove Sample Today!**

<https://www.wellslamontindustrial.com>

## **FLEXTECH CUT RESISTANT SANDY NITRILE PALM COATED TOUCHSCREEN GLOVES (Y9214)**

Our hardworking customers expect protection from their cut resistant gloves. Our Y9214 gloves



have proven their value and are an ideal choice for Construction, Metal Fabrication, Metal Handling, Metal Stamping, Warehousing, Automotive Manufacturing, Recycling and Salvage.

Palm coated work gloves provide an additional layer of protection in high wear/high risk areas of the hand. The Y9214 is constructed of high-performance Polyethylene fibers (HPPE) for a higher level of comfort and protection. Sandy nitrile coated palm provides excellent grip for handling parts in wet and oily environments. The Y9214 is touchscreen capable, allowing



Y9215

operation of today's touchscreen devices. Greater cut protection, excellent grip and enhanced comfort, and touchscreen capability make the Y9214 an ideal choice for industrial applications.

- 13-gauge, seamless knit shell provides breathability for all-day comfort
- Sandy nitrile palm coating delivers improved grip in wet and oily applications
- Compatible with Touchscreen devices
- Machine washable for longer wear life
- ANSI Puncture Level 4
- ANSI Cut Level A6

#### **FLEXTech CUT RESISTANT POLYURETHANE (PU) PALM COATED TOUCHSCREEN GLOVES (Y9215)**

Our hardworking customers expect protection from their cut resistant gloves. Our Y9215 gloves have proven their value and are an ideal choice for Construction, Metal Fabrication, Metal Handling, Assembly, Automotive Manufacturing, Recycling and Salvage.

Palm coated work gloves provide additional protection in high wear/high-risk areas of the hand. The Y9215 uses high performance polyethylene fibers (HPPE) for greater cut protection. The polyurethane palm coating provides excellent grip, as well as high dexterity and tactile sensitivity.

- 13-gauge, seamless knit shell provides breathability for all-day comfort
- Knit wrist helps prevent dirt and debris from entering the glove
- Compatible with Touchscreen devices
- Machine washable for longer wear life
- ANSI Puncture Level 3
- ANSI Cut Level A6
- Sold by the dozen pair

**Wells Lamont Industry Group, LLC.**  
847.647.8200 • [www.wellslamontindustrial.com](http://www.wellslamontindustrial.com)



**FlexTech™**

# INTRODUCES THE **A6 CUT LEVEL TOUCHSCREEN GLOVES** Available with PU or Nitrile Coating



**Y9214**  
Sandy Nitrile  
Palm Coated



**Y9215**  
Polyurethane (PU)  
Palm Coated

- 13-gauge, seamless knit shell provides breathability for all-day comfort
- Compatible with Touchscreen devices
- Machine washable for longer wear life
- ANSI Cut Level A6
- ANSI Abrasion Level 4
- Sold by the dozen pair



**GET THE ANSWERS FOR PROTECTING YOUR HANDS**  
Please Contact Customer Service: **800-247-3295**  
Or Visit : **[wellslamontindustrial.com](http://wellslamontindustrial.com)**

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