



protecting people

SuperFabric®

HexArmor®



“We worked with a number of other glove manufacturers to solve our problems of splinters from the dry veneer tearing through leather and Kevlar. Nothing worked. We were introduced to HexArmor® about 16 months ago and have finally found a solution with the SteelLeather® 5039. We’ve had numerous incidents since mandating HexArmor® that in the past would have needed medical attention, but thanks to HexArmor®, our employees went home whole.”

Safety Manager, Lumber Industry

# SuperFabric®

## A cut above

We started a journey more than a decade ago. A group of hardworking people with a vision for safety and a new technology no one had ever seen. One that had the potential to change the way people viewed safety of workers across the world. This industry-changing technology was a material called SuperFabric®. A technology so unique – we secured an exclusive license for use in the industrial PPE market and went to work.

We started with one industry and one glove. We worked hand-in-hand with the largest recycling company in North America, Waste Management, to engineer a variety of hand and arm protection using direct feedback from their workers. We changed, altered, tested, and trialed products until we began eliminating injuries for a few large companies.

Eliminated – as in zero – none.

That's when we knew we were going to change the landscape of safety in the workplace.

Over time, we expanded our PPE offerings from hand and arm protection to leg and body protection as well. Century-old workplace problems were disappearing as we partnered with hundreds of safety managers in several industries to create new safety solutions that others couldn't.

HexArmor® PPE with SuperFabric® technology became an industry game-changer.

# HexArmor®



## Imagine this:

You're a sorter in a recycling facility. You're always keeping an eye out for hazardous items that may have found their way into a recycling bin and onto the sorting line. Safety is important, but so is efficiency, so you work quickly. You've gone years with no accidents or injuries on the job.

Then IT happens. You reach for a plastic bottle and in one swooping motion you accidentally get stuck with a hypodermic needle that had been buried beneath the bottle. You look down and realize that the needle has pierced through your glove and your skin. Painful? Yes. Worse yet are the thoughts that start running through your head.

**“Where has this needle been?”**

“Can I contract something through this stick?”

**“... what will I tell my family?”**

This is a real scenario that far too many workers have had to face. Stories like this have driven HexArmor® to constantly innovate our PPE with an industry-changing technology, a material called SuperFabric®.



“During the recycling process of 2-liter bottles for use in carpet, my employees were experiencing cuts and splinters from all sorts of things. Glass, metals, needles, wire; all kinds of things came across our line. We mandated HexArmor® glove and arm protection and our injuries literally stopped. It’s great to have a partner like HexArmor®.”

**Safety Manager,  
Plastic Recycling for Carpet/Textile Manufacturing**

# It's No Surprise

## Risk of workplace injuries won't just go away.

Cuts, punctures, lacerations, and needlesticks can cause life-changing injuries for workers. A company's bottom line, productivity, and overall worker morale take a huge hit when workers are injured on the job.

### Consider the facts:

In 2016 alone, there were

**104,330**

cut, laceration, & puncture injuries in the US, that resulted in an average of

**3 missed work days<sup>1</sup>**



Needle exposures can cost

**\$5,000 to \$36,000**

per year for ongoing treatment

The above amounts are in US dollars.

"We went from five lacerations a year to zero in the past two years after we switched from Kevlar® arm guards and gloves to HexArmor®. Our employees were getting cut through the knit of the old sleeves, often needing medical attention. Now they are safe."

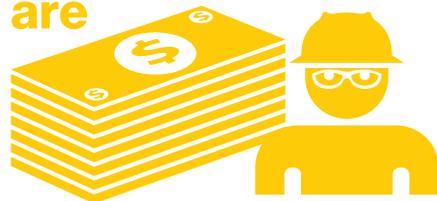
EHS Supervisor,  
Gas Turbine Manufacturer

Indirect cost of injuries can be

**20X**  
the direct cost<sup>3</sup>

- Loss of productivity
- Bad publicity for the employer
- Lowered worker morale
- Wasted time and resources to train replacements

Average hand injury claims  
are



**\$6,000 per worker**  
with each lost-time worker's compensation  
claim reaching nearly 7,500<sup>2</sup>

These statistics are what drive us. See a problem, solve it. That's exactly what HexArmor® products made with SuperFabric® brand materials are striving to do, one hazard at a time.

<sup>1</sup> US Bureau of Labor Statistics

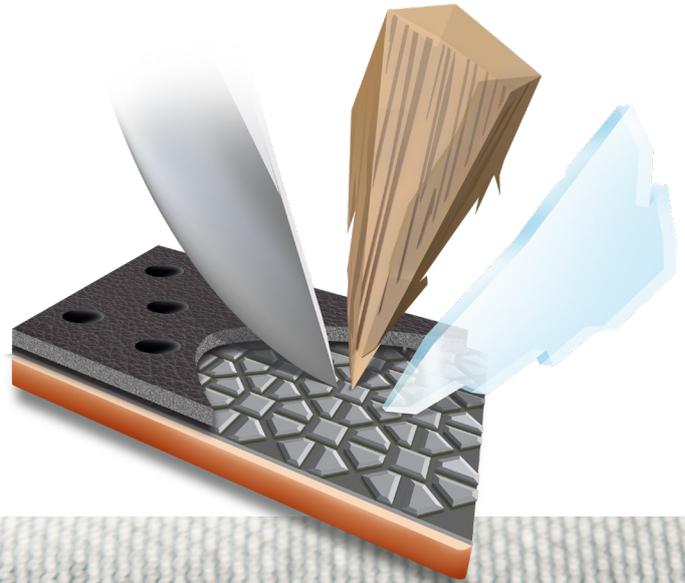
<sup>2</sup> Industrial Safety & Hygiene News

<sup>3</sup> Industrial Safety & Hygiene News

# SuperFabric®

#1 in cut, puncture,  
and needlestick protection

SuperFabric® brand material is a HexArmor® exclusively licensed solution for the Industrial PPE Market that protects against the most dangerous hazards encountered on the job – blades, wire, metal, glass, wood splinters, and needles – preventing life-changing injuries and saving companies millions in expenses. The configuration of tiny guard plates on SuperFabric® performance fabrics protect against cut, puncture, and needlestick injuries, without sacrificing dexterity.



"We couldn't find anything that was protective enough for changing out slitter blades until we met a rep from HexArmor®. He worked with us to evaluate the challenges and helped come up with the perfect solution. We're now using the 9010, 4025 and HexArmor® arm guards, and our injuries have dropped 100%."

- Safety Manager, International Paper Manufacturer

\*SuperFabric is a registered trademark of HDM, Inc.

# How does SuperFabric® protect workers?

Our award-winning gloves and body protection with SuperFabric® brand materials feature highest-level cut, puncture, needlestick, and abrasion resistance – all purpose-built for a variety of hazards and applications. No matter the job (or the weather), we have the right grips, fabrics, and materials that exceed the required standards and help keep you safe. These innovations are what make us today's trusted advisor in the safety industry – a job we take seriously.

## **CUT:**

SuperFabric® provides flexible cut resistance unlike any other material on the market, and in most cases, with just a single layer of breathable, dexterous, cut resistant material. SuperFabric® brand materials provide ANSI/ISEA level A6-A9 cut resistance and exceed EN388 Level 5 cut resistance. The configuration of tiny guard plates block and deflect hazards.

## **PUNCTURE:**

PPE with excellent cut protection often lacks adequate puncture protection. SuperFabric® brand materials are engineered to deflect and block everything from industrial puncture hazards as thick as a wood splinter, to a fine, single wire strand from a steel braided cable. The spacing between the guard plates provides needed flexibility without sacrificing performance.

## **NEEDLESTICK:**

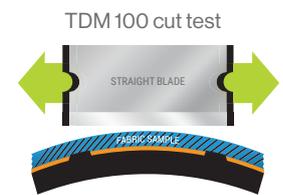
Needles are sharp, beveled cutting instruments designed to pierce the skin. When the situation calls for protection from needles, HexArmor® needlestick resistant products work by layering flexible SuperFabric® brand materials over each other – providing superior performance without sacrificing dexterity. SuperFabric® guard plates block and deflect or trap and arrest needle hazards, keeping workers safe from needlestick injuries.

# How does SuperFabric® stack up in standardized testing?

Testing standards should be used as a guide to help choose PPE, but field-testing should always be performed before anything new is implemented into a safety program. HexArmor® products with SuperFabric® have proven themselves in real world applications, delivering the best cut, puncture, and needlestick protection in the industry.

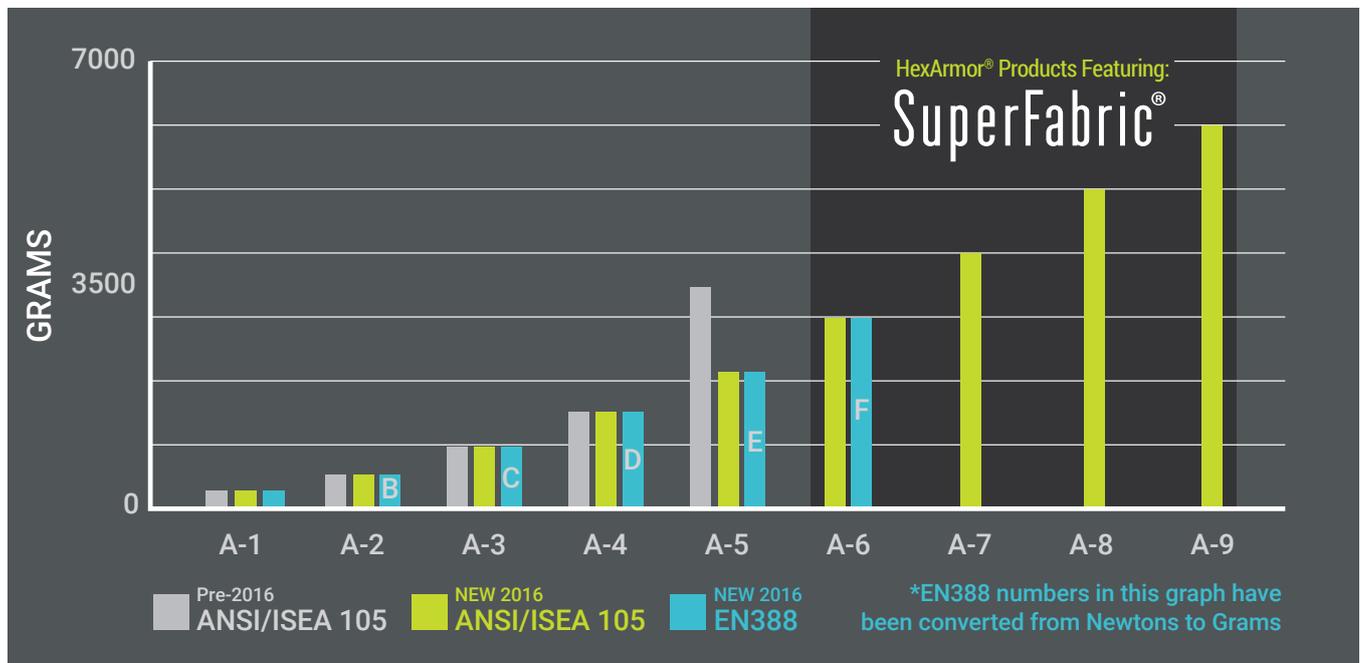
## Cut testing

We take testing *seriously*. All our gloves, arm, and body protection are tested against the American ANSI/ISEA standard and the European EN388 standard. With the ANSI/ISEA standard, PPE is scored by using an A1-A9 scale, with A9 being the highest cut resistant level. PPE tested using the EN388 standard can be scored two different ways (depending on the material and the test being used) using a level 1-5 scale, with 5 being the highest, or A-F scale, with F being the highest.



HexArmor® products made with SuperFabric® brand material provide ANSI/ISEA level A6-A9 cut resistance and exceed EN388 level 5 and level F cut resistance. For more information about cut testing standards and the different levels, visit [hexarmor.com](http://hexarmor.com) and check out our **Cut Standards Whitepaper**.

## How do SuperFabric® products fare in cut testing?



Typical cut-resistant safety gloves are made with a performance fiber (Kevlar®, Dyneema®, Spectra®) or a blend of such fibers. While these gloves offer some levels of cut-resistance, they lack the ability to prevent hazards from puncturing or penetrating the skin surface.

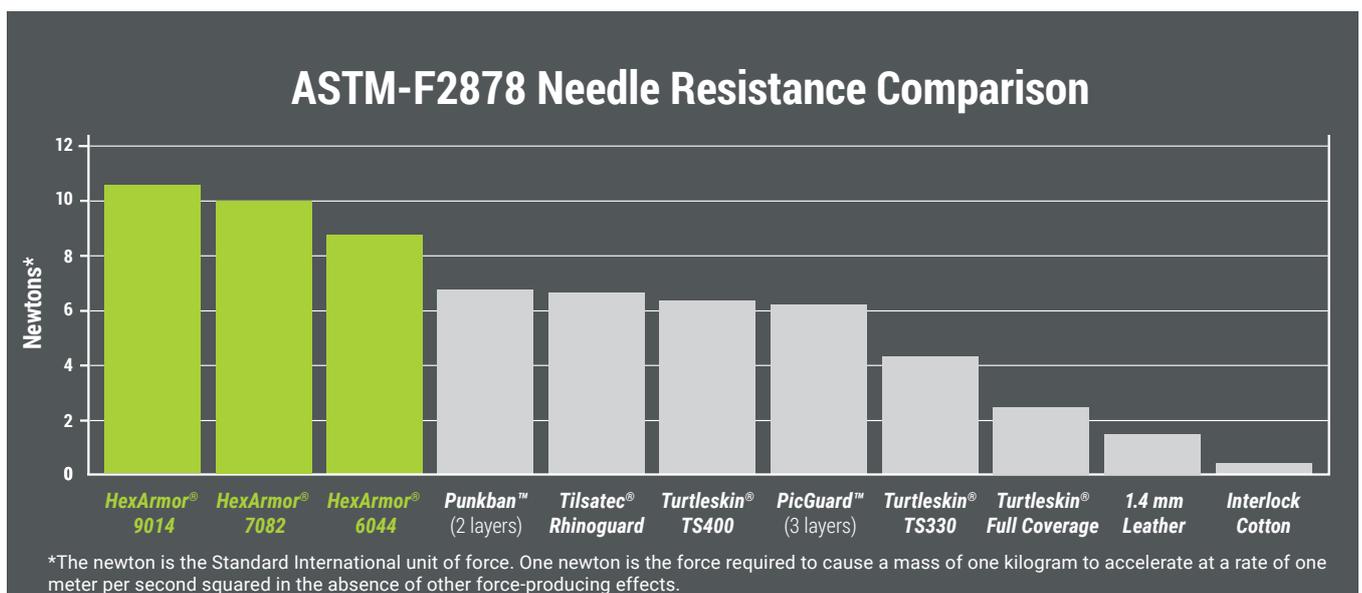
## Puncture testing

The EN388 industrial puncture test method uses a blunt puncture probe, like that of a ball point pen that moves at a very slow pace. Results are reported in Newtons and converted to a 1-4 rating scale for EN 388 and a 1-5 scale for ANSI/ISEA 105-16.



## Needlestick testing

Due to the limitations of existing puncture testing in regard to needles, the ANSI/ISEA 105 test for needlestick resistance was introduced. Needlestick testing measures the Newtons needed to pierce the material using a 25-gauge hypodermic needle. Results are reported in Newtons using a level 0-5 classification scale, with 5 being the most needlestick resistant.



## CASE STUDY

# The mission to zero injuries:

## \$1.8 Million saved in injury costs

One of the largest steel producers in the world was experiencing a dangerous amount of laceration injuries per year. Sharp edges, corners and burrs on flat rolled product, scrap, metal bending, and threaded pipe were ripping through existing PPE. Safety professionals were unable to find a solution to reduce injuries and lower costs associated with these hand and arm lacerations until HexArmor® was brought in. As a result, in 12 months with HexArmor® products made with SuperFabric® brand materials, this steel producer experienced:

- 160+ lacerations per year average reduced to ZERO
- \$1.8 million saved in injury costs
- Safer employees, better workplace, higher productivity

## SteelLeather® 5033 with SuperFabric® saves a worker's finger

While replacing a steam valve at a manufacturing site, a maintenance worker reached under a wooden crate, unaware that there was an exposed nail sticking out. The nail punctured through the leather on the middle finger, but was stopped by the protective SuperFabric® material liner in the HexArmor® SteelLeather® 5033 glove. The worker was saved from serious injury, and continued with the workday!





## From 15 injuries a month to ZERO

Forestry product giant Weyerhaeuser reached out to HexArmor® in search of PPE capable of reducing or preventing the frequency of recordable splinter injuries on laminate and veneer lines. One Weyerhaeuser plant was experiencing 15 sliver injuries per month, and had been unable to find a solution to this ongoing problem.

The introduction of HexArmor® gloves and arm guards with SuperFabric® brand materials to the Weyerhaeuser laminate and veneer plant resulted in reducing recordable injuries from 15 a month to ZERO!

# What's in a glove?

## Different patterns, Different purposes

HexArmor® utilizes variations of SuperFabric® technologies that are directly integrated into high-performance products (gloves, arm, and body protection) through different patterns of cut/sewn and direct print technologies and processes. These different material combinations give different protective properties to products.



### HA607

HA607 SuperFabric® is the highest cut protection material available. It incorporates a single layer construction with cotton material underneath. Cotton substrate gives workers the best feeling material on their hand while also being the most flexible and soft, allowing workers the highest level of comfort. HA607 SuperFabric® brand materials can be found in our popular Chrome Series gloves which all offer incredibly high ANSI/ISEA level A8 cut protection.



### HA603R

HA603R SuperFabric® brand material offers both high cut and high blunt puncture resistance. Tightly woven polyester provides a strong base for the proprietary guard plates, which gives the material maximum burst strength while also providing high cut resistance. HA603R SuperFabric® brand material can be found in the HexArmor® GGT5 series, EXT Rescue 4011 glove, and HexArmor arm guards and aprons, providing products with this specific layered material ANSI/ISEA level A7 to A9 cut resistant protection.



### HA110

HA110 SuperFabric® brand materials offer exceptional needlestick protection (when layered) and high cut protection. The needlestick protection is only available when layered due to the geometry and offsetting of the guard plates on the material. The layering of these materials is crucial for applications that involve needle hazards but these layers also give gloves high cut protection - ANSI/ISEA level A7 to A9. HA110 is found in HexArmor's Pointguard® and Pointguard® Ultra gloves and arm guard line, and ThornArmor®, which is ideal for serious gardeners and professional landscapers.



### HA111

HA111 SuperFabric® brand materials consist of a thin, highly cut resistant material with some fine puncture resistance due to the guard plates' geometry. HA111 is typically used in one layer as an added cut protection layer for various products such as HexArmor's Mechanics+ gloves and the 9000 series.



“HexArmor® needlestick gloves are the best hand protection on the market. Our HexArmor® rep helped us define our areas of concern and recommended the perfect solution for us. And it’s really paid dividends on reducing our injury rates.”

- Regional Safety Manager  
U.S. Recycling Company



protecting people

**HexArmor**<sup>®</sup>

Call **1800 815 790** or visit **hexarmor.com.au**

HexArmor<sup>®</sup> products are cut and puncture resistant, NOT CUT AND PUNCTURE PROOF. Do not use with moving or serrated blades or tools. User shall be exclusively responsible to assess the suitability of the product as specified for any individual application or use. Protection zones are to be used as a general guide. Actual product protection zones may differ.

Protected by patents and patents pending.  
SuperFabric<sup>®</sup> is a registered trademark of HDM, Inc.

All products, product descriptions and performance scores are current as of March 2021.  
For current product information, please visit [hexarmor.au](http://hexarmor.au), or call 1800 815 790