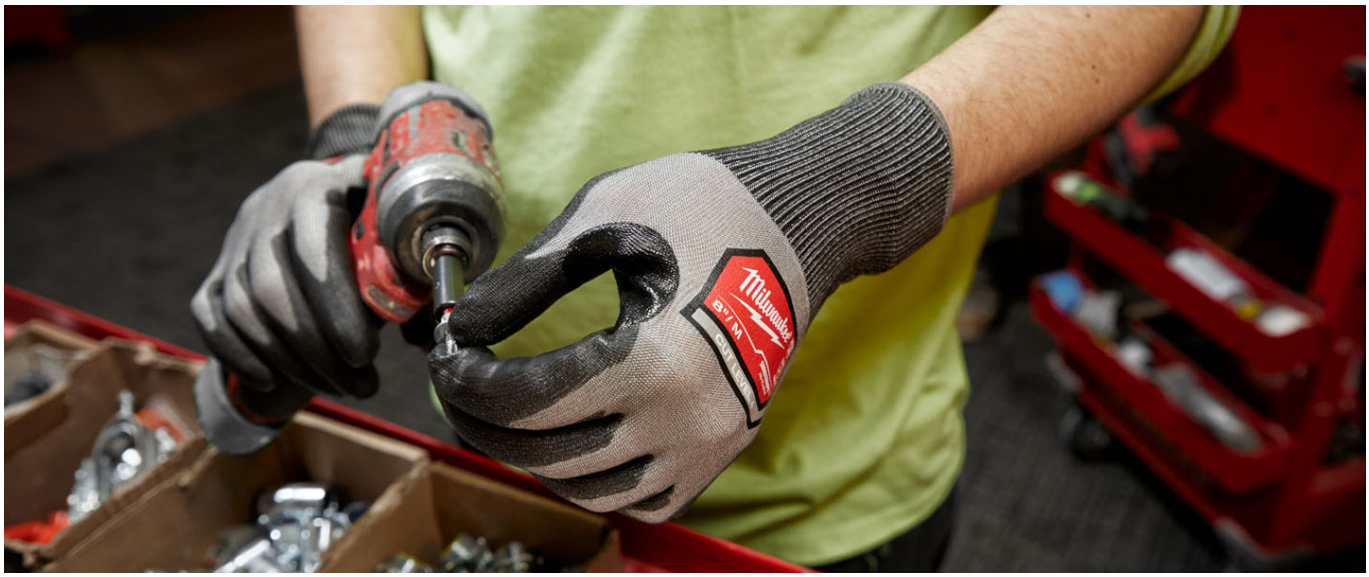


Safety

# Tough but Touch-Sensitive: Milwaukee's Newest Safety Glove

James Langford | Sep 26, 2024

**It started with worn-out safety gloves, used to the limit of their endurance by workers in fields from electrical to manufacturing, plumbing and construction, then discarded.**

***Milwaukee Tool*** found a new purpose for them, collecting and analyzing the points where heavy use was wearing through the fabric, and then leveraging those findings to improve its next line of gloves, the High-Dexterity series, the most recent of which were introduced in January.

"The goal was to identify where gloves wear out the fastest and reinforce those areas," says Austin Dorman, senior product marketing manager for Milwaukee. Those improvements were in addition to features designed to satisfy customer demand for heightened flexibility, thinner composition and touchscreen sensitivity.

## Safety Gloves: A $13.9 Billion Market

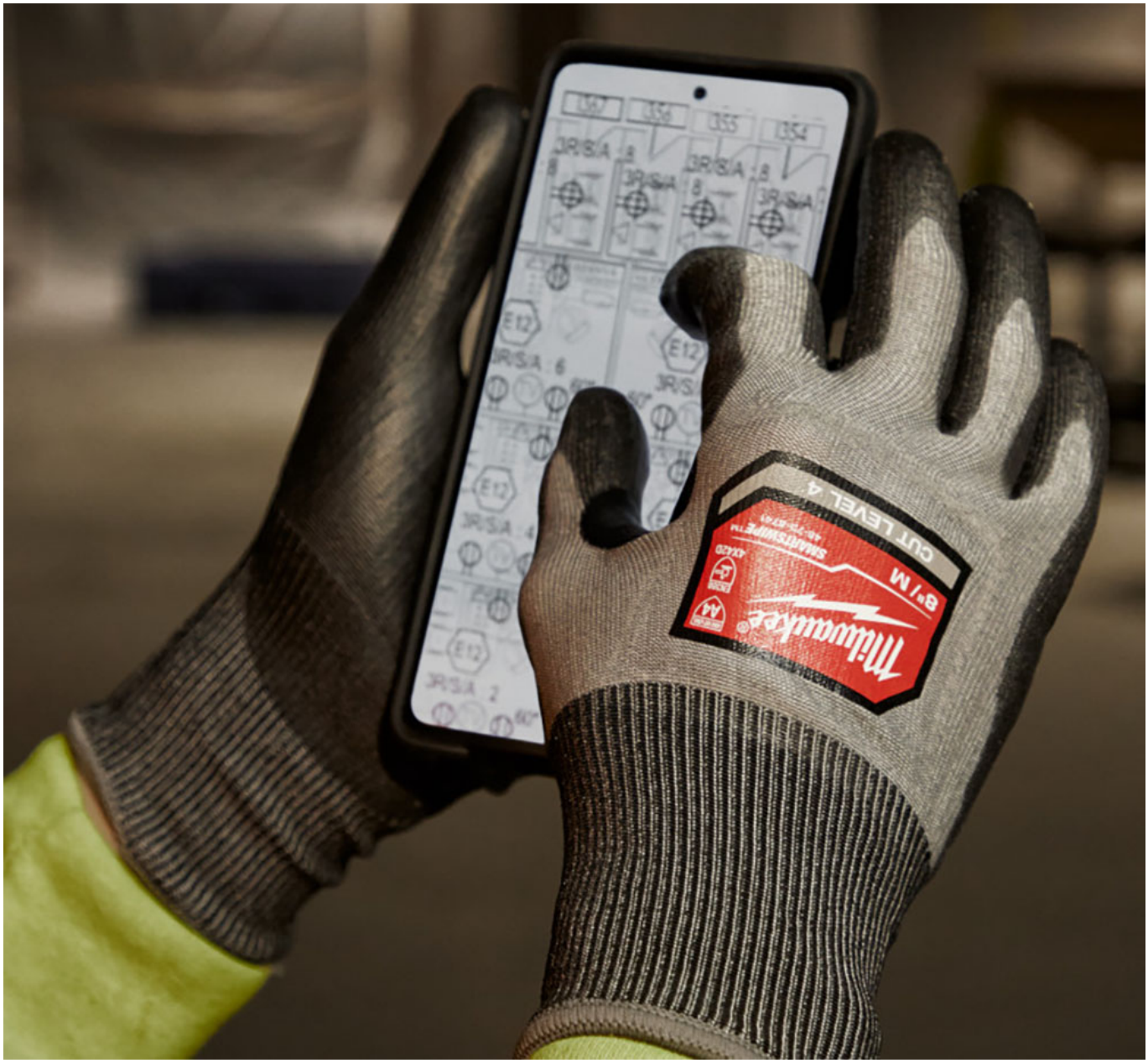
With cut protection levels from A2 to A9, the strongest, under standards set by the American National Standards Institute, the High-Dexterity hand coverings are coated in a nitrile dip to increase durability. Models with cut protection levels from A2 to A5 are also available in a polyurethane coating for maximum dexterity and added breathability. Both feature Milwaukee's Smartswipe™ touchscreen compatibility.

"We wanted to make sure we were satisfying specific user requirements for all of the different cut levels," Dorman says. "We used an 18-gauge material that allows the gloves to remain extremely thin while retaining the cut resistance that users need without sacrificing the dexterity or tactile feedback required to do their jobs."

Hand safety gear is by far the biggest of the markets for personal protective equipment, accounting for

30 percent of $13.5 billion of sales in 2019, according to consulting firm ***McKinsey & Co***.

While the firm predicted demand would grow steadily, customer expectations for gloves are evolving as businesses including manufacturing facilities increasingly rely on digital equipment that requires tactile sensitivity to operate.




Demand for safety gloves that workers can wear while operating touchscreen devices has increased significantly in the past few years. | Photo courtesy of Milwaukee Tool

***Click here to shop for Milwaukee gloves on MSCDirect.com***

"Safety managers and key decision-makers are really spending a lot on gloves, so they're trying to get the most bang for their buck," Dorman adds. "They want to make sure the gloves are durable and holding up to the tasks at hand, but what outweighs all of that is user feedback."

Negative feedback can be a deal-breaker because safety studies have shown workers are less likely to wear gloves that make them uncomfortable or hinder their ability to do their jobs—whether completing tasks that require fine motor skills or using touchscreen devices.

## Manipulating Small Fasteners, Wires

While it's possible to manufacture a glove that's super-thick, super-durable and will last for an extremely long time, it would curb dexterity so much that users couldn't bend their hands and wouldn't wear it, Dorman says.

Employers have a vested interest in avoiding that outcome. When protective gloves are required by the U.S. Occupational Safety and Health Administration, failing to wear them not only leaves workers susceptible to potentially crippling hand injuries, but it also exposes businesses to regulatory fines and higher healthcare costs.

More than 120,000 hand and arm injuries severe enough to keep employees from work occur on the job every year, and 70 percent happen when workers aren't wearing protective gloves or sleeves, Dorman says, citing the U.S. Bureau of Labor Statistics.

When Milwaukee began analyzing why workers removed their gloves, "the biggest reasons came down to dexterity and tactile feedback," Dorman says. "They were manipulating small fasteners or small wires, for example, and they weren't able to do it with gloves, so they would take them off."

Milwaukee realized that "the biggest need we had to address was dexterity," Dorman says. "We worked to ensure that these gloves maintained the dexterity and tactile feedback that wearers need without sacrificing cut protection."

## Color-Coded to Simplify Inspection

Touchscreen compatibility was another top priority, with demand for it increasing dramatically in the past few years alone, Dorman says.

"We know that every glove we make from here on out is going to have to have some form of touchscreen compatibility," he adds. "While many of the materials that we use have some form of conductiveness to help with touchscreen usage, the added benefit of the 18-gauge material used in the High-Dexterity series is that its thinness gives you much easier conductive transmission from your fingers to the touchscreen."

Since Milwaukee's analysis of worn-out gloves showed the company that the curve between the forefinger and thumb, referred to as a saddle or crotch, is typically the first place that fabric fails, the manufacturers also "focused on that area and reinforced it as much as we could to extend the life of the gloves," Dorman says.

To help safety managers track whether workers have the ***right glove for the job***, the company added color coding on the wrist trim and the portion covering the back of wearers' hands to indicate the cut protection level.

"When you have an employee who's required to wear a Level 7 glove, for instance, the safety manager knows to look for a purple band," Dorman says. "With the color-coding, safety managers don't have to walk up and inspect the gloves closely. They can see from a distance whether the workers are wearing what they need."

**What kinds of jobs do your workers remove safety gloves to complete? Tell us in the comments below.**