

Why Breathability Matters in Hand Protection



When it comes to hand protection, comfort is often underestimated.

However, it plays a crucial role in safety, performance, and worker satisfaction. Poor ventilation in gloves leads to discomfort, distraction, and increased risk.

For professionals wearing gloves across long shifts or in physically demanding environments, breathability is not a luxury.

It is essential for consistent protection and effective performance.

The Hands: A HIGH SWEAT ZONE

Your hands are uniquely designed to sweat. Each palm contains over **3,000 sweat glands per square inch**, making them one of the most active areas for perspiration on the body. Unlike other areas, the palms do not have hair follicles to assist with cooling. Sweating is the primary way your hands regulate temperature.

When a glove does not allow this moisture to escape, it traps heat and perspiration against the skin. This can quickly lead to discomfort, slippery grip, skin irritation, and increased fatigue. In some cases, prolonged exposure to trapped sweat can contribute to occupational skin conditions such as dermatitis, particularly when paired with chemical or abrasive contact.

Why Comfort and Safety GO HAND IN HAND

It is a common misconception that discomfort is simply something to be tolerated in the workplace. In reality, discomfort often results in reduced compliance. Workers may remove gloves to cool their hands or modify how they wear them, unintentionally creating exposure to risks.

Discomfort is consistently cited as a leading reason for inconsistent PPE use across industrial environments. Heat, sweat, and lack of breathability are leading causes of this discomfort, particularly in high-paced or warm working environments. This makes breathable glove design not only a matter of comfort but a key factor in maintaining compliance and avoiding unnecessary risk.



ATG®'s Approach to BREATHABILITY

ATG® gloves are developed with an understanding that comfort, safety, and performance are interlinked. That is why breathability is built into the design of each glove, not added as an afterthought.

AIRtech® technology delivers 360° breathability through advanced micro-foam nitrile coatings. This ensures that warm air and moisture can escape from all around the hand, rather than just through the back of the glove. The result is a cooler, drier internal glove environment, even during extended periods of wear.

This design supports worker focus, helps maintain grip quality, and encourages consistent PPE use throughout the day.

Real-World RESULTS

Breathability is not just a feature, it makes a measurable difference.

In wearer evaluations, improved breathability consistently translated into better comfort and acceptance:

93%

Of users said that
breathable gloves felt
cooler to wear

77%

Reported a noticeable
reduction in hand
sweating

81%

Said they would choose
a breathable glove over
their previous option

These figures highlight are based on wearer trials conducted by ATG® and show the importance of comfort in maintaining productivity and consistent protection across shifts.

CHOOSING

The Right Breathable Glove

Not all breathable gloves are created equal.

If you are evaluating glove options for your team, it is important to consider:

Is the glove breathable around the entire hand, or only partially?

Are the materials safe for prolonged skin contact?

Will the glove perform in high-temperature or high-intensity environments?

Does the glove maintain durability, grip, and protection while offering breathability?

ATG® gloves are certified by independent dermatological bodies such as the Skin Health Alliance, and manufactured using REACH-compliant materials. This ensures that users benefit not only from breathable comfort but also from skin-safe design and responsible production practices.

Breathability AND LONG-TERM VALUE

While breathable gloves may be perceived to be a premium option, they can offer longer-term value through improved wear time, fewer replacements, and higher user satisfaction.

Gloves that are removed less frequently, worn correctly, and replaced less often due to moisture degradation contribute to reduced total cost of ownership over time.

Breathability is not a bonus. It is a performance factor that improves safety, enhances comfort, and supports productivity. For teams working in challenging conditions, breathable gloves provide an environment that encourages wear, prevents skin issues, and promotes a more positive relationship with PPE.

ATG® designs gloves with these needs in mind, integrating breathable technology without compromising on protection.

Because protection is only effective when it is worn consistently and correctly.