



**Gloves that don't feel
like gloves.**

DSM DYNEEMA LICENSING PROGRAM

Industrial gloves made with Dyneema®, the world's strongest fiber, offer exceptional protection against cuts and abrasion, as well as light weight and comfort. In addition to enabling "gloves that don't feel like gloves," Dyneema® polyethylene fibers provide great flexibility and cost efficiency for end-users.

Through its licensing program for industrial glove suppliers, DSM Dyneema selects companies with proven production standards to work together on quality assurance, product promotion and communication efforts focusing on the benefits of the Dyneema® fiber. As part of the program, licensees' gloves with Dyneema® are tested by DSM Dyneema for resistance to abrasion and cuts.

The Dyneema® label is applied to gloves that successfully pass these tests, letting end-users know that the design meets the strictest requirements for safety and performance.

To be sure of quality, look for the label:



LICENSING PARTNER: SUPERIOR GLOVE

DSM Dyneema is pleased to have Superior Glove as a member of our licensing program for suppliers of industrial gloves. Superior Glove's cut resistant gloves containing our super-strong Dyneema® polyethylene fiber, have been tested by DSM Dyneema and have shown to meet strict requirements for safety, performance and quality. We look forward to working with Superior Glove on marketing and communications efforts through the program.



TECHNICAL PERFORMANCES

Cut resistance

The primary reason for buying protective products (e.g. cut-resistant gloves) is to ensure that employees working in various industries are protected against injuries. Cut-resistance properties in protective products like gloves are a prerequisite. Many different materials are used in currently available cut-resistant protective gloves, including leather, cotton, Aramids and PE fibers. Each material has its own specific advantages, limitations and protection levels.

Dyneema® is the world's strongest fiber and is commercially produced by DSM Dyneema. It is made from Ultra High Molecular Weight Polyethylene (UHMW-PE) and has a very high cut resistance compared to both natural fibers (cotton, leather) and other man-made fibers. When used in protective gloves, Dyneema® yarn provides cut-resistance levels of up to 3 / 4 (EN388) without using composite fibers. If the highest level of cut resistance is required (level 5), Dyneema® yarns can easily be combined with glass or steel fiber.

Abrasion resistance

Protective gloves are often exposed to sharp objects that can abrade the glove. The more a glove is abraded the less protection it offers. Naturally, the higher the abrasion resistance a glove offers, the longer the wearer is protected. Thanks to the smoothness and high crystalline properties of the Dyneema® fiber, the abrasion resistance is extremely high and cannot be matched by any other fiber. Tests have demonstrated that gloves made with Dyneema® have up to 20 times more abrasion resistance than gloves made, for example, with Aramid-based (spun) yarns.

Chemical resistance

Thanks to the structure of Dyneema®, the yarn is resistant to both acid and alkaline chemicals without adversely affecting its performance. Gloves made with Dyneema® can therefore be laundered many times.

Conductivity and effusiveness

The conductive and effusive properties of Dyneema® are indicators of the yarn's capability to absorb and transmit heat. Both of these properties are very high compared to other fibers used in cut-resistant gloves, which means that gloves made with Dyneema® yarn can disperse (body) heat quickly.

Flexibility

Dyneema® yarn is extremely flexible and can be bent over and over again without filaments breaking. Together with the yarn's smooth surface, this feature is the key contributor to the high dexterity that gloves containing Dyneema® will give you.



COST EFFICIENCY

Although personal injuries should be prevented at any cost, the cost efficiency of personal protection products is an important factor in the decision-making process. Of course, cost efficiency should not only depend on the actual price of the gloves, but also on the total cost of use until the gloves are disposed of. This means that three factors determine overall cost efficiency:

1. Actual price of the gloves
2. Useful lifetime of the gloves
3. 'Indirect' costs (relating to injuries)

While the initial price of gloves made with Dyneema® is higher than other typical cut-resistant gloves, the fact that the lifetime of gloves made with Dyneema® is much longer means that the gloves are much cheaper to use in the long term.

Gloves made with Dyneema® last much longer because:

- They offer high abrasion resistance.
- They can be washed many times.

UNPARALLELED COMFORT

Today, wearing comfort is as important an attribute as technical performance in protective gloves. If gloves are not comfortable to wear, employees won't wear them all the time, especially if they need to do other things (work or non-work related) where a high level of dexterity is required. The risk therefore of employees returning to their work stations and not wearing adequate glove protection is high, and this can lead to potential injuries (which can lead to 'indirect' costs).

Gloves made from Dyneema® yarn are so comfortable to wear because:

- The micro fibers used are extremely soft and kind to the skin.
- Dyneema® fibers transmit (body) heat quickly to the outside of the glove, so hands don't get warm and sweaty but feel cool and dry all day.
- Dyneema® fibers are extremely flexible which, together with their smoothness, offer the glove wearer unparalleled comfort and dexterity.

Disclaimer

This leaflet has been prepared for information purposes only, and no rights can be derived from it. DSM Dyneema is not a glove manufacturer.

Dyneema® is a registered trademark of Royal DSM N.V.