

CHEMICAL  
PROTECTIVE GLOVES

# Sempersoft·Semperstar·Semperplus

The Best for Your Skin.



sempermed®   
INDUSTRIAL

# SAFETY IS A MUST.



Protective gloves are an imperative in many areas of business nowadays. It is their quality on which the safety and health of the employees depends. When handling aggressive substances for longer periods of time, only high-quality gloves can guarantee the necessary protection. Sempersoft and Semperstar are chemical resistant protective gloves made of vinyl. This material is highly resistant to acids and lyes. Vinyl is not only characterized by its resistance to chemicals, but also provides for excellent skin toleration. Skin irritations and allergies due to natural latex proteins and accelerators are thus a thing of the past. This was also shown in numerous studies.

Also Semperplus nitrile glove scores double in this respect: Firstly, with a higher level of protection for the wearer's hands. Nitrile is a synthetic rubber that offers outstanding resistance to oils, fats and aromatic solvents, and also has excellent mechanical resistance.

Comprehensive tests confirm both the protective action of the gloves (in accordance with EN 374-3) and their dermatological safety. With these excellent properties, our chemical protective gloves are designed specifically for use in industrial applications and certified in accordance with the relevant directive for personal protective clothing (89/688/EEC).

The uses for vinyl gloves are very varied: They are predestined for professional cleaning applications and general work safety in the chemical industry and petrochemicals and also for use in agriculture and general printing applications.

The perfect product quality of our chemical protective gloves is guaranteed by decades of experience in production and quality assurance according to strict medical directives. The excellent skin friendliness of Sempermed products is also a mainstay of our product philosophy.



## QUALITY AND SAFETY

In addition to research and development at the highest level in Austria – the heart of Europe – safety and quality are particularly important at Sempermed. Consistently high product quality, constant striving for perfection and local personal service and advice make Sempermed your problem-solver in all issues concerning protective gloves.



## EXCELLENT SKIN TOLERANCE

Allergy prevention remains a great challenge. With its broad range of protective gloves of optimised material, Sempermed Research makes a major contribution to your health and safety. The multiple washing processes during the production of powder-free gloves make the gloves particularly clean and also skin-friendly both outside and inside. With every glove, various specially developed technologies or processes are applied that optimise the glove properties and offer various need-specific product benefits. Read more about the product benefits of the individual gloves on the following pages.



## SEMPERSOFT COMFORT

This particularly strong protective glove made of vinyl is free from natural latex. Dermatologically tested and recommended for users who already have problems with natural latex products or want to avoid such problems.



### YOUR ADVANTAGES AT A GLANCE

- CE category III protective glove for complex risks
- Particularly skin-friendly protective glove made of vinyl → free from natural latex and accelerants – dermatologically tested and recommended
- Dense soft viscose flock lining guarantees excellent wearing comfort
- Structured surface of fingers and palm ensures a good grip, even when wet
- Good chemicals resistance\* – offers an excellent barrier effect against many aggressive chemicals and other skin irritating substances.

**Applications:** Handling of chemicals, Industrial safety, Cleaning, Household, Food processing.

\*according to List of Chemicals

### TECHNICAL DETAILS

|   |                                     |
|---|-------------------------------------|
| GLOVE SHAPE   | anatomical with straight edge       |
| MATERIAL  | Vinyl                               |
| COLOUR  | blue                                |
| OUTSIDE   | structured                          |
| INSIDE  | flocked with viscose                |
| SIZE/TOTAL LENGTH<br>according to EN 420                  | S, M, L, XL 310 mm ± 10 mm          |
| THICKNESS/PALM<br>Wall thickness measured in single layer | 0.5 mm ± 0.15 mm                    |
| PACKAGING   | 12 pairs / carton<br>144 pairs / SU |



## SEMPERSOFT phthalate-free

This particularly strong protective glove made of vinyl is free from phthalates and natural latex. Dermatologically tested and recommended for users who already have problems with natural latex products or want to avoid such problems.



### YOUR ADVANTAGES AT A GLANCE

- CE category III protective glove for complex risks
- Particularly skin-friendly, phthalate-free protective glove made of vinyl → free from natural latex and accelerants – dermatologically tested and recommended
- Dense soft viscose flock lining guarantees excellent wearing comfort
- Structured surface of fingers and palm ensures a good grip, even when wet
- Good chemicals resistance\* – offers an excellent barrier effect against many aggressive chemicals and other skin irritating substances.

**Applications:** Handling of chemicals, Industrial safety, Cleaning, Household, Food processing.

\*according to List of Chemicals

### TECHNICAL DETAILS

|   |                                     |
|---|-------------------------------------|
| GLOVE SHAPE   | anatomical with straight edge       |
| MATERIAL  | Vinyl                               |
| COLOUR  | blue                                |
| OUTSIDE   | structured                          |
| INSIDE  | flocked with viscose                |
| SIZE/TOTAL LENGTH<br>according to EN 420                  | S, M, L, XL 310 mm ± 10 mm          |
| THICKNESS/PALM<br>Wall thickness measured in single layer | 0.5 mm ± 0.15 mm                    |
| PACKAGING   | 12 pairs / carton<br>144 pairs / SU |





## SEMPERSOFT

This particularly strong protective glove made of vinyl is free from natural latex. Dermatologically tested and recommended for users who already have problems with natural latex products or want to avoid such problems.



### YOUR ADVANTAGES AT A GLANCE

- CE category III protective glove for complex risks
- Particularly skin-friendly protective glove made of vinyl → free from natural latex and accelerants –dermatologically tested and recommended
- Dense soft cotton flock lining guarantees excellent wearing comfort
- Structured surface of fingers and palm ensures a good grip, even when wet
- Good chemicals resistance\* - offers an excellent barrier effect against many aggressive chemicals and other skin irritating substances.

**Applications:** Handling of chemicals, Industrial safety, Cleaning, Household, Food processing.

\* according to List of Chemicals

### TECHNICAL DETAILS

|   |                                     |
|---|-------------------------------------|
| GLOVE SHAPE   | anatomical with straight edge       |
| MATERIAL  | Vinyl                               |
| COLOUR  | green                               |
| OUTSIDE   | structured                          |
| INSIDE  | flocked with cotton                 |
| SIZE/TOTAL LENGTH<br>according to EN 420                  | S, M, L, XL 310 mm ± 10 mm          |
| THICKNESS/PALM<br>Wall thickness measured in single layer | 0.6 mm ± 0.15 mm                    |
| PACKAGING   | 12 pairs / carton<br>144 pairs / SU |



## SEMPERSTAR

This particularly strong protective glove made of vinyl is free from natural latex. Dermatologically tested and recommended for users who already have problems with natural latex products or want to avoid such problems.



### YOUR ADVANTAGES AT A GLANCE

- CE category III protective glove for complex risks
- Particularly skin-friendly protective glove made of vinyl → free from natural latex and accelerants
- Greater thickness for even more safety
- High degree of comfort through pure cotton lining
- Structured surface of fingers and palm ensures a good grip, even when wet
- Good chemicals resistance\* - offers an excellent barrier effect against many aggressive chemicals and other skin irritating substances.

**Applications:** Handling of chemicals, Industrial safety, Printing presses, Agriculture and forestry, Household and garden.

\* according to List of Chemicals

### TECHNICAL DETAILS

|   |                                     |
|---|-------------------------------------|
| GLOVE SHAPE   | anatomical with straight edge       |
| MATERIAL  | Vinyl                               |
| COLOUR  | yellow                              |
| OUTSIDE   | structured                          |
| INSIDE  | flocked with cotton                 |
| SIZE/TOTAL LENGTH<br>according to EN 420                  | S, M, L, XL 310 ± 10 mm             |
| THICKNESS/PALM<br>Wall thickness measured in single layer | 0.5 mm ± 0.15 mm                    |
| PACKAGING   | 12 pairs / carton<br>144 pairs / SU |





## SEMPERPLUS

Robust protective glove made of high-quality nitrile with excellent mechanical strength and resistance against to oils, fats and aromatic solvents.



### YOUR ADVANTAGES AT A GLANCE

- CE category III protective glove for complex risks
- Excellent protection due to particularly high mechanical strength → high tear resistance
- The glove keeps its particularly good wearing comfort even at low temperatures
- More protection through extra length
- Structured surface → sure grip (e.g. in fish processing)
- Skin-friendly (free from latex proteins and phthalates)

**Applications:** Chemicals, Industrial safety, Labs, Agriculture and forestry, Food, Cleaning.

### TECHNICAL DETAILS

|   |                                 |
|---|---------------------------------|
| GLOVE SHAPE   | anatomical with straight edge   |
| MATERIAL  | Vinyl                           |
| COLOUR  | green                           |
| OUTSIDE   | diamond pattern                 |
| INSIDE  | flocked with cotton             |
| SIZE/TOTAL LENGTH<br>according to EN 420                  | 7, 8, 9, 10, 11     330 ± 10 mm |
| THICKNESS/PALM<br>Wall thickness measured in single layer | 0.38 mm ± 0.05 mm               |
| PACKAGING   | 12 pairs / PE<br>144 pairs / SU |



## APPLICATIONS AT A GLANCE

### SEMPERSOFT/SEMPERSTAR/SEMPERPLUS CHEMICAL PROTECTIVE GLOVES

| APPLICATION              | SEMPERSOFT | SEMPERSOFT Comfort | SEMPERSTAR | SEMPERPLUS |
|--------------------------|------------|--------------------|------------|------------|
| Chemicals                | •          | •                  | •          | •          |
| Printing                 |            |                    | •          | •          |
| Galvanization technology | •          | •                  | •          | •          |
| Industrial safety        | •          | •                  | •          | •          |
| Labs                     | •          | •                  |            | •          |
| Agriculture              |            |                    | •          | •          |
| Food                     | •          | •                  |            | •          |
| Household                | •          | •                  | •          | •          |
| Cleaning                 | •          | •                  | •          | •          |
| Pharmaceuticals          |            | •                  |            |            |

### SYMBOL FOR FOODSTUFF COMMODITIES:



This symbol confirms that the protective gloves are in conformity with EU Regulation 1935/2004, which defines the general specifications for materials and articles intended for contact with foodstuffs.



The test as set out in EN 388 (mechanical risks) is shown by the pictogram and the performance level:

*Abrasion resistance*  
*Cut resistance*

*Tear resistance*  
*Perforation resistance*



Pictogram EN374 with the beaker stands for waterproof protective gloves and low protection from chemical hazards.



The test in accordance with EN 374-2 determines whether the glove is free from holes and therefore impermeable for micro-organisms as defined in the standard. In production, the glove is tested for AQL levels. If specified, they mean:

*Performance level 1: AQL 4.0    Performance level 3: AQL 0.65*  
*Performance level 2: AQL 1.5*

# RECOMMENDATION ON CHEMICAL RESISTANCE

Protective gloves Sempersoft – Sempersoft phthalate free – Semperstar – Semperplus – Sempervelvet use have been tested in accordance with EN 374-3 “Determination of resistance to permeation by chemicals”

| CHEMICAL                               | BREAKTHROUGH TIME AS SET OUT IN EN 374-3 IN MINUTES |            |            |
|--|---|------------|------------|
|  | SEMPERSOFT & SEMPERSOFT phthalate free              | SEMPERSTAR | SEMPERPLUS |
|  | Vinyl   | Vinyl      | Nitril     |
| Acetone                                | n. t.   | n. t.      | A          |
| Acetonitrile                           | Level 1   | Level 1    | X          |
| Ammonium hydroxide (10%)               | Level 6   | Level 6    | Level 6    |
| Ammonium hydroxide(25%)                | Level 2   | Level 1    | Level 5    |
| Butanol                                | Level 4   | Level 4    | Level 6    |
| Butyl acetate - n                      | n. t.   | n. t.      | Level 1    |
| Chloroform                             | X   | X          | X          |
| Cyclohexanol solid                     | Level 6   | n. t.      | n. t.      |
| Diesel fuel(100%)                      | n. t.   | Level 6    | n. t.      |
| Diethyl ether                          | A   | n. t.      | n. t.      |
| Dimethylsulfoxide (DMSO)               | Level 2   | Level 2    | A          |
| Ethanol (70%)                          | Level 2   | Level 2    | Level 4    |
| Ethanol p.a.                           | Level 1   | Level 1    | Level 4    |
| Ethyl acetate                          | n. t.   | n. t.      | Level 1    |
| Ethylene glycol liquid                 | Level 6   | Level 6    | n. t.      |
| Formaldehyde (37 %) (without Methanol) | Level 6   | Level 6    | Level 6    |
| Gasoline CAS 8032-32-4                 | Level 3   | Level 3    | Level 6    |
| Glutaraldehyde (10%)                   | Level 6   | Level 6    | n. t.      |
| Hydrofluoric acid (10 %)               | Level 6   | Level 6    | n. t.      |
| Hydrofluoric acid (40 %)               | Level 2   | Level 2    | Level 4    |
| Hydrogen peroxide (10%)                | Level 6   | Level 6    | n. t.      |
| Isopropyl alcohol p.a.                 | Level 4   | Level 3    | Level 6    |
| Methanol                               | Level 1   | Level 1    | Level 2    |
| N-heptane                              | Level 1   | Level 1    | Level 6    |
| N-hexane                               | Level 1   | Level 1    | Level 6    |
| Nitric acid (50%)                      | Level 5   | Level 5    | Level 5    |
| Nitro thinner                          | n. t.   | n. t.      | X          |
| Phenol (85%)                           | Level 3   | Level 3    | Level 3    |
| Sodium hydroxide (40%)                 | Level 6   | Level 6    | Level 6    |
| Sulphuric acid (96%)                   | Level 3   | Level 3    | Level 2    |
| Toluene                                | A   | A          | Level 1    |
| Xylene                                 | n. t.   | n. t.      | Level 1    |

- X not recommended
- A for splash contact recommended
- Level 1 for short contact recommended
- Level 2 for contact up to 60 min recommended
- Level 3 for contact up to 120 min recommended
- Level 4 for contact up to 240 min recommended
- for contact up to 480 min recommended
- for contact longer than 480 min recommended
- n.t. → not tested

IMPORTANT NOTE: All Sempermed and industrial protective gloves are in compliance with the valid standards and EU Directives. Please note that the product properties depend directly on the conditions in which it is used and purity of the chemicals. If you are working with substances that can harm the skin, please check the glove for any holes or cracks before using it. Generally, tests and certificates can only serve as general information and do not release the user from his duty to make sure that the glove fulfils his current protective needs before use. The chemical resistance recommendations are not a part of the specifications. In case of doubt, please contact your dealer or Sempermed. [www.semperit.at](http://www.semperit.at)