





**5,800**  
EMPLOYEES  
WORLDWIDE



**RESEARCH  
AND  
DEVELOPMENT**



**6**

**PRODUCTION FACILITIES AROUND THE GLOBE**



**PATENTS**

**56**

**OWNED**





**100%**  
INTEGRATED  
MANUFACTURING



**1 BRAND**



**EST. 1954**

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SHOWA, ChemRest, DURACoil, S-TEX, Hagane coil and TEMRES are registered as trademark of Showa Glove Co.





## WE ARE SHOWA®

SHOWA® is a fully integrated manufacturer. We fully control our industrial ecosystem by creating our own machinery, yarns, coatings, polymers, designs, and hand formers. We control every step of our process, every step of the way – for 100% quality control at every level. SHOWA® makes protective gloves for all industries and applications requiring high quality hand protection.

*Our hand protection solutions are grouped into five major product families or clusters:*



CHEMICAL AND LIQUIDS



GENERAL PURPOSE



INSULATED



SINGLE USE



CUT



Strategy and Operations



Production and Manufacturing

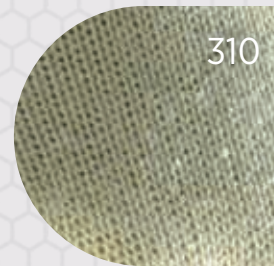


Research and Development



# MATERIALS AND THEIR PERFORMANCE

SHOWA® offers a wide range of materials and coatings. Compare the strengths and drawbacks of each and choose the compositions that best meet your needs!



310

## COTTON

Natural cellulose fibre. Flexible, soft and non-irritating, it protects against mechanical aggression (impacts, low vibration, iron filings, splinters, glass fragments), absorbs perspiration and gives you great comfort when wearing dipped protective gloves continuously. Cotton fibres are mixed with polyester fibres in order to associate comfort with a higher mechanical resistance and more elasticity.



370

## NYLON

A lightweight elastic polyamide which is largely lint-free and washable, dries quickly and is resistant to abrasion and deformation. Mixed with cotton and acrylic, it makes the glove more flexible and extends its lifetime.



451

## ACRYLIC

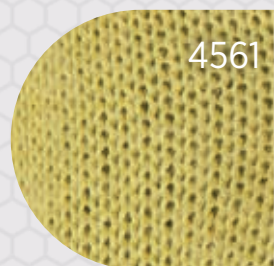
A polymer that is resistant to water, common solvents, acids and weak alkalis, and that is resistant to abrasion and to traction. Soft and warm, it insulates you from the cold. Mixed with cotton, it makes the knit more lightweight.



541

## HPPE

High performance polyethylene is flexible, light and durable. As resistant to cutting as a para-aramid but with more resistance to abrasion (ten times more resistant to flexion than a wire), it remains resistant to chemicals, in particular solvents.



4561

## KEVLAR®

It is lightweight, supple, comfortable and washable. It provides effective protection from cuts (above level 5, with stainless steel reinforcing) and from convective heat and offers durability and performance that far exceed that of leather (5 times higher) and cotton (3 times higher).

Kevlar® is a registered commercial trademark of DuPont.



# EACH COATING HAS ITS QUALITIES

## NITRILE

Anti-slip vulcanised synthetic rubber

- + Excellent abrasion and cut resistance
- + Three times the puncture resistance of natural rubber latex
- + Good mechanical performance
- + Excellent resistance to oil, grease and hydrocarbons
- + Good resistance to acids, certain organic solvents, pesticides, oils and fuels
- + Heat resistance (but no flame resistance)
- + Does not contain Natural Rubber proteins
- + Dissipates static electricity: prevents electrostatic discharge

- Relatively rigid
- Normally low tear resistance
- No chemical resistance against ketones and some chlorinated hydrocarbons, for ex. methylene chloride and trichloroethylene

## NATURAL RUBBER

Natural rubber latex mainly from the rubber tree

- + Very flexible and elastic
- + Good grip
- + Excellent resistance to tearing and bending
- + Good resistance to abrasion
- + Very robust
- + Waterproof
- + Protects against weak acids, caustics, alcohols and detergents
- + Protection against viruses and bacteria

- Poor chemical resistance against oils, greases, hydrocarbons and organic solvents
- Proteins may cause allergies

## POLYURETHANE PU

Plastic that is a microporous elastomer

- + Very flexible and elastic
- + Does not contain Natural Rubber proteins
- + Clean – does not shed particles like other polymers
- + Good resistance to abrasion
- + Good resistance to oil
- + Does not harden in the cold
- + Does not soften in the heat
- + Excellent perspiration thanks to porous ventilation

- Low chemical resistance
- Poor resistance to hot water

## PVC POLY VINYL CHLORIDE

Impermeable plastic

- + Flexible at even -20°C
- + Material softened by a plasticiser
- + Good electrical insulator
- + High chemical resistance

- Low resistance to cuts, puncturing and heat
- Single use PVC gloves might have pinholes
- Low resistance to solvents

## NEOPRENE

Polychloroprene synthetic rubber

- + Flexible and soft like natural rubber
- + Does not contain Natural Rubber proteins
- + Good abrasion and cut resistant
- + Chemical protection against acids, alcohols, fats, ketones, organic and inorganic solvents, oils, greases and petrochemicals
- + Heat resistant and flame resistant

- Poor grip when wet
- No chemical resistance against chlorinated hydrocarbon solvents

## BUTYL

Synthetic rubber polymer for heavy chemical protection

- + Very elastic, even at low temperatures
- + Excellent chemical resistance against ketones (MEK, acetone) and acids
- + Low gas permeability
- + Dissipates perfectly static electricity: prevents electrostatic discharge

- Limited grip
- Limited dexterity
- Poor mechanical resistance
- Poor resistance to aliphatic hydrocarbons (hexane, diesel, gasoline), aromatic hydrocarbons (benzene, toluene, xylene) and halogenated solvents (chloroform and chlorobenzene)

## VITON

Synthetic rubber polymer - the last resort

- + Protects where nothing else protects
- + Chemical protection against PCBs
- + Excellent chemical protection against chlorinated, aliphatic and aromatic hydrocarbons

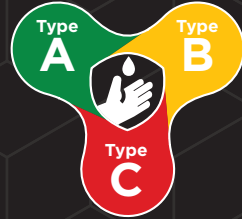
- Limited grip
- Limited dexterity
- Not suitable for ketones, esters and nitro compounds





# CHEMICAL PROTECTION

SHOWA® has an extensive portfolio of chemical hand protection ranging from Type A to Type C.



ChemRest® makes navigating the challenges of chemical resistant hand protection easier for safety professionals by providing an entire portfolio of products, resources and tools in one platform.

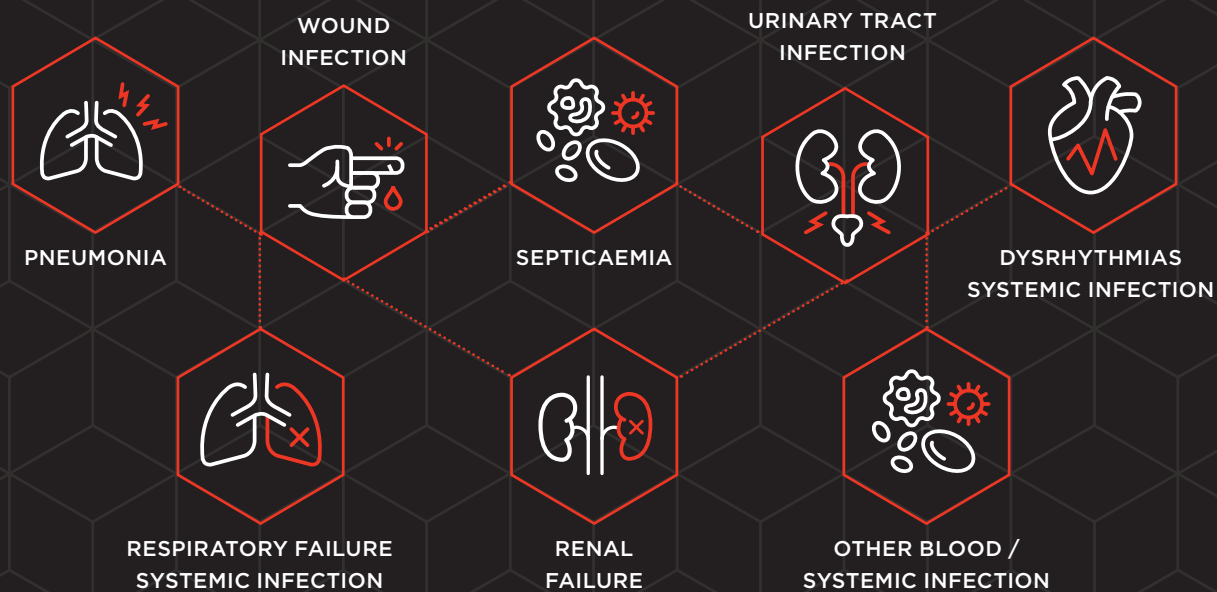
## THE DANGERS OF CHEMICALS AT WORK

Chemicals and abrasive solvents are used by billions of people globally. In fact, there are more than 350,000 chemicals and chemical mixtures in the world, registered for commercial production and use (Environ. Sci. Technol. 2020). Workers who are in contact with chemicals, hazardous substances and gases - even simple cleaning detergents - are putting their hands at risk.

While chemical injuries occur more frequently in occupations where chemicals are manufactured, they also happen in other high-risk industries such as mining, painting, construction, oil and gas, healthcare, warehousing, transportation, agriculture and welding. Some chemical injuries happen when workers are (unintentionally) exposed to seemingly non-harmful solutions or gases over long periods of time.

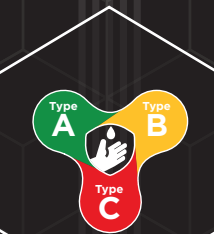
## COMPLICATIONS FROM CHEMICAL BURNS

Patients with chemical burns can go on to suffer the following complications:



## REINFORCE YOUR DEFENCE WITH THE CHEMREST® PROTECTION PLATFORM

SHOWA® aims to empower customers with the knowledge and tools to make better and more informed choices about their chemical hand protection.



### EDUCATE

Coherent tools and training on hand protection against chemicals



### EVALUATE

Full risk assessment and in-house lab testing of customer-specific chemicals



### EQUIP

A complete series of protective gloves adapted to all industries and uses



VISIT [CHEMREST.COM](https://chemrest.com) TO FIND THE RIGHT GLOVE



# PROTECTION AND PRESERVATION IN ONE

Sustainability isn't just a commitment - it's part of SHOWA's legacy. Our revolutionary Eco Best Technology (EBT) offers the solution that makes a difference to the environment, without any compromise on protection and performance.

HOW DOES EBT WORK?



## SAME GLOVE, BETTER FOR THE PLANET.

SHOWA's revolutionary Eco Best Technology (EBT) makes a difference to the environment, without any compromise in protection and performance. Launched in 2012, our biodegradable nitrile gloves are the industry's first, and today, SHOWA® offers the most extensive selection of biodegradable hand protection in the market.

SHOWA® LAUNCHED ITS EBT TECHNOLOGY IN 2012 - A DECADE OF SUSTAINABILITY

**SHOWA**  
Always Innovating. Never Imitating.

# 383

**MULTI-PURPOSE**  
**PROTECTION MADE**  
**WITH ECO BEST**  
**TECHNOLOGY**



## NATURALLY THE BEST, JUST GOT GREENER.



### PROTECTION. PERFORMANCE. PLANET.

The world's first sustainable multi-purpose glove preserves the planet without compromising on performance or protection.

Featuring our revolutionary Eco Best Technology, the SHOWA 383 takes 1-5 years to biodegrade in an active landfill, compared to more than 100 years for other, non-sustainable options. The 383 is your earth-friendly choice in protection and preservation.



MECHANICAL



AUTOMOTIVE



CONSTRUCTION



GARDENING







NITRILE

EBT



NEW



SHOWA®  
CN740

Unsupported, biodegradable nitrile engineered with EBT technology

BENEFITS

- Biodegradable
- Chemical-resistant
- Oil-resistant
- Impermeable
- Easy donning and doffing
- Durable

FEATURES

Liner: **Unlined**  
Coating: **Nitrile w/EBT**  
Thickness: **0,38mm**  
Grip: **Textured**

APPLICATIONS

- Chemical spray and treatment
- Light chemical handling in horticulture, agriculture
- Light assembly of oil-coated pieces
- Coating preparation
- Washing and cleaning

REF	SIZE	LENGTH
CN740	7/S	320mm
CN740	8/M	320mm
CN740	9/L	320mm
CN740	10/XL	320mm
CN740	11/XXL	320mm



EBT



NEW



SHOWA®  
CN741

Unsupported, biodegradable nitrile engineered with EBT technology and long cuff offering forearm protection

BENEFITS

- Biodegradable
- Forearm protection
- Chemical-resistant
- Oil-resistant
- Impermeable
- Easy donning and doffing
- Durable

FEATURES

Liner: **Unlined**  
Coating: **Nitrile w/EBT**  
Thickness: **0,38mm**  
Grip: **Textured**

APPLICATIONS

- Light assembly of oil-coated pieces
- Painting and spray workshops
- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Pool/pond maintenance
- Handling plants and vegetables

REF	SIZE	LENGTH
CN741	7/S	380mm
CN741	8/M	380mm
CN741	9/L	380mm
CN741	10/XL	380mm
CN741	11/XXL	380mm



WAVE PATTERN OUTSIDE & PALM SIDE OF THE GLOVE



Strong grip in all conditions.  
The wave pattern used on the palm guarantee a good and strong grip.

NITRILE

EBT



NEW



SHOWA®  
CN750

Unsupported, biodegradable nitrile engineered with EBT technology

BENEFITS

- Biodegradable
- Chemical-resistant
- Oil-resistant
- Impermeable
- Easy donning and doffing
- Durable

FEATURES

Liner: **Unlined**  
Coating: **Nitrile w/EBT**  
Thickness: **0,46mm**  
Grip: **Textured**

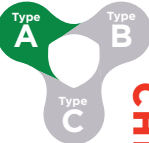
APPLICATIONS

- Chemical spray and treatment
- Light chemical handling in horticulture, agriculture
- Light assembly of oil-coated pieces
- Painting and spray workshops
- Coating preparation
- Washing and cleaning

REF	SIZE	LENGTH
CN750	7/S	320mm
CN750	8/M	320mm
CN750	9/L	320mm
CN750	10/XL	320mm
CN750	11/XXL	320mm



| TYPE A | TYPE B | TYPE C



EBT



NEW



SHOWA®  
CN751

Unsupported, biodegradable nitrile engineered with EBT technology and long cuff offering forearm protection

BENEFITS

- Biodegradable
- Forearm protection
- Chemical-resistant
- Oil-resistant
- Impermeable
- Easy donning and doffing
- Durable

FEATURES

Liner: **Unlined**  
Coating: **Nitrile w/EBT**  
Thickness: **0,46mm**  
Grip: **Textured**

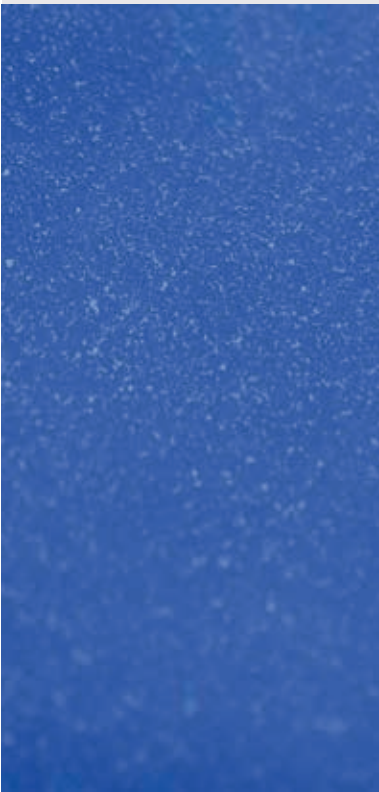
APPLICATIONS

- Light assembly of oil-coated pieces
- Painting and spray workshops
- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Pool/pond maintenance
- Handling plants and vegetables

REF	SIZE	LENGTH
CN751	7/S	380mm
CN751	8/M	380mm
CN751	9/L	380mm
CN751	10/XL	380mm
CN751	11/XXL	380mm



UNIQUE TECHNOLOGY INSIDE THE GLOVE



Easy don-doff after sweating condition.  
With its unique technology inside, the particles disperse the water content which make the glove easy to don and doff even after sweating.

NITRILE



SHOWA®  
CS700

Double dipped nitrile coating with rough grip over seamless liner

BENEFITS

- Anti-slip Grip
- Chemical-resistant
- Oil-resistant
- Seamless knit
- Robust durability
- Natural rubber free

FEATURES

Liner: **Polyester**  
Coating: **Nitrile**  
Thickness: **1,16mm**  
Grip: **Rough**

APPLICATIONS

- Chemical spray and treatment
- Light chemical handling in horticulture, agriculture
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Fruit and vegetable processing
- Grain, mill and starch products
- Washing and cleaning

REF	SIZE	LENGTH
CS700	7/S	300mm
CS700	8/M	300mm
CS700	9/L	300mm
CS700	10/XL	320mm
CS700	11/XXL	320mm



SHOWA®  
CS701

Double dipped nitrile coating with rough grip, long cuff offering forearm protection

BENEFITS

- Anti-slip Grip
- Chemical-resistant
- Oil-resistant
- Seamless knit
- Robust durability
- Forearm protection
- Natural rubber free

FEATURES

Liner: **Polyester**  
Coating: **Nitrile**  
Thickness: **1,16mm**  
Grip: **Rough**

APPLICATIONS

- Chemical spray and treatment
- Light chemical handling in horticulture, agriculture
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Fruit and vegetable processing
- Grain, mill and starch products
- Washing and cleaning

REF	SIZE	LENGTH
CS701	7/S	350mm
CS701	8/M	350mm
CS701	9/L	350mm
CS701	10/XL	370mm
CS701	11/XXL	370mm



SHOWA®  
CS710

Foamed nitrile coating with enhanced grip and seamless liner

BENEFITS

- Chemical-resistant
- Oil-resistant
- Seamless knit
- Extra grip
- Robust durability
- Natural rubber free

FEATURES

Liner: **Polyester**  
Coating: **Nitrile**  
Thickness: **1,47mm**  
Grip: **Foam**

APPLICATIONS

- Chemical spray and treatment
- Light chemical handling in horticulture, agriculture
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Fruit and vegetable processing
- Grain, mill and starch products
- Washing and cleaning

REF	SIZE	LENGTH
CS710	7/S	300mm
CS710	8/M	300mm
CS710	9/L	300mm
CS710	10/XL	320mm
CS710	11/XXL	320mm



NITRILE



SHOWA®  
CS711

Foamed nitrile coating with enhanced grip and long cuff offering forearm protection

BENEFITS

- Chemical-resistant
- Oil-resistant
- Extra grip
- Seamless knit
- Robust durability
- Forearm protection
- Natural rubber free

FEATURES

Liner: **Polyester**  
Coating: **Nitrile**  
Thickness: **1,47mm**  
Grip: **Foam**

APPLICATIONS

- Chemical spray and treatment
- Light chemical handling in horticulture, agriculture
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Fruit and vegetable processing
- Grain, mill and starch products

REF	SIZE	LENGTH
CS711	7/S	350mm
CS711	8/M	350mm
CS711	9/L	350mm
CS711	10/XL	370mm
CS711	11/XXL	370mm



SHOWA®  
CS720

Rough finish nitrile coating over polyester liner

BENEFITS

- Seamless knit
- Increased dexterity
- Oil-resistant
- Chemical-resistant
- Forearm protection
- Anti-slip Grip
- Robust durability
- Natural rubber free

FEATURES

Liner: **Polyester**  
Coating: **Nitrile**  
Thickness: **1,23mm**  
Grip: **Rough**

APPLICATIONS

- Chemical spray and treatment
- Light chemical handling in horticulture, agriculture
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Fruit and vegetable processing
- Grain, mill and starch products
- Washing and cleaning

REF	SIZE	LENGTH
CS720	7/S	300mm
CS720	8/M	300mm
CS720	9/L	300mm
CS720	10/XL	320mm
CS720	11/XXL	320mm



SHOWA®  
CS721

Rough finish nitrile coating and long cuff offering forearm protection

BENEFITS

- Seamless knit
- Increased dexterity
- Oil-resistant
- Chemical-resistant
- Forearm protection
- Anti-slip Grip
- Robust durability
- Natural rubber free

FEATURES

Liner: **Polyester**  
Coating: **Nitrile**  
Thickness: **1,23mm**  
Grip: **Rough**

APPLICATIONS

- Chemical spray and treatment
- Light chemical handling in horticulture, agriculture
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Fruit and vegetable processing
- Grain, mill and starch products
- Washing and cleaning

REF	SIZE	LENGTH
CS721	7/S	350mm
CS721	8/M	350mm
CS721	9/L	350mm
CS721	10/XL	370mm
CS721	11/XXL	370mm







## PROTECTION AND PRESERVATION IN ONE

**Sustainability isn't just a commitment - it's part of SHOWA's legacy.**  
**Our revolutionary Eco Best Technology (EBT) offers the solution that makes a difference to the environment, without any compromise on protection and performance.**

Utilising the organic process to measure how our gloves break down in a natural setting, our EBT technology outperforms the industry norm in enviro-standardised testing\*. Launched in 2012, our biodegradable nitrile gloves are the industry's first, and today, SHOWA® offers the most extensive selection of biodegradable hand protection on the market.

Every SHOWA® EBT glove is made with the same rigid quality controls and standards as our entire portfolio. That means the overall performance of the glove - its durability, comfort, grip and protection - stays exactly the same.

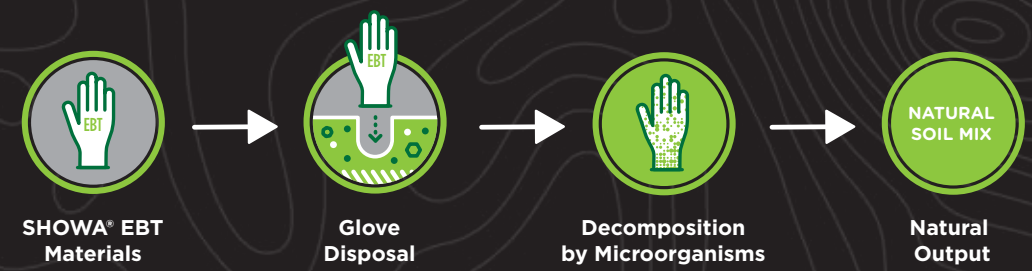
\*As proven with ASTM D5511 and D5526 test results



TESTED **ASTM D5526** **ASTM D5511**



### HOW DOES EBT WORK?



### SHOWA'S DISCLAIMER

SHOWA® gloves with EBT are engineered for accelerated biodegradation in biologically active landfills. Independent certified laboratories performing longterm landfill biodegradation testing according to ASTM D5526-12 reported that SHOWA® gloves with EBT achieved 82.0% biodegradation in only 386 days, while gloves without EBT achieved only 1.9% biodegradation over the same period of time. These results may not be indicative of future biodegradation.



NITRILE



SHOWA®  
**727**

Unsupported, full nitrile coating with textured finish

**BENEFITS**

- Chemical-resistant
- Water-resistant
- Forearm protection
- Oil-resistant
- Flexible

**FEATURES**

Liner: **Unlined**  
Coating: **Nitrile**  
Thickness: **0,38mm**  
Grip: **Textured**

**APPLICATIONS**

- Chemical spray and treatment
- Light chemical handling in horticulture, agriculture
- Light assembly of oil-coated pieces
- Painting and spray workshops
- Coating preparation
- Washing and cleaning
- Food processing

REF	SIZE	LENGTH
727	7/S	330mm
727	8/M	330mm
727	9/L	330mm
727	10/XL	330mm
727	11/XXL	330mm

SHOWA®  
**730**

Unsupported, full nitrile coating with textured finish over cotton flock lined

**BENEFITS**

- Forearm protection
- Chemical-resistant
- Oil-resistant
- Impermeable

**FEATURES**

Liner: **Cotton flocked**  
Coating: **Nitrile**  
Thickness: **0,38mm**  
Grip: **Textured**

**APPLICATIONS**

- Chemical spray and treatment
- Light chemical handling in horticulture, agriculture
- Light assembly of oil-coated pieces
- Painting and spray workshops
- Coating preparation
- Washing and cleaning
- Food processing

REF	SIZE	LENGTH
730	6/XS	330mm
730	7/S	330mm
730	8/M	330mm
730	9/L	330mm
730	10/XL	330mm
730	11/XXL	330mm



The SHOWA® 730 nitrile glove provides protection against a broad range of oils, solvents and chemicals. Textured finish increases wet grip for enhanced ease and safety.

NITRILE



SHOWA®  
**737**

Unsupported, nitrile coating with textured finish long cuff offering forearm protection

**BENEFITS**

- Forearm protection
- Chemical-resistant
- Oil-resistant
- Impermeable

**FEATURES**

Liner: **Unlined**  
Coating: **Nitrile**  
Thickness: **0,56mm**  
Grip: **Textured**

**APPLICATIONS**

- Light assembly of oil-coated pieces
- Painting and spray workshops
- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Pool/pond maintenance
- Handling plants and vegetables
- Washing and cleaning
- Food processing

REF	SIZE	LENGTH
737	9/L	380mm
737	10/XL	380mm
737	11/XXL	380mm



SHOWA®  
**747**

Unsupported, full nitrile coating with textured finish long cuff offering forearm protection

**BENEFITS**

- Forearm protection
- Chemical-resistant
- Oil-resistant
- Impermeable

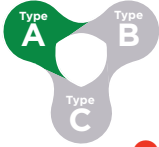
**FEATURES**

Liner: **Unlined**  
Coating: **Nitrile**  
Thickness: **0,56mm**  
Grip: **Textured**

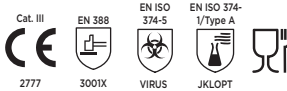
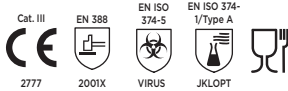
**APPLICATIONS**

- Chemical spray and treatment
- Handling light chemicals in agriculture, horticulture
- Light assembly of oil-coated pieces
- Painting and spray workshops
- Coating preparation
- Washing and cleaning
- Food processing

REF	SIZE	LENGTH
747	9/L	480mm
747	10/XL	480mm
747	11/XXL	480mm



CHEMICAL | CUT | GENERAL PURPOSE | INSULATED | SINGLE USE | ANTI-STATIC





NITRILE



SHOWA®  
NSK 24

Biodegradable nitrile coating (EBT) with rough finish on the hand over cotton jersey liner

BENEFITS

- Acid-resistant
- Oil-resistant
- Hydrocarbon-resistant
- Forearm protection
- Natural rubber
- Water-resistant
- Biodegradable

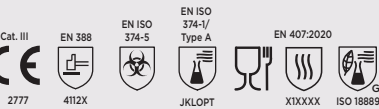
FEATURES

Liner: **Cotton**  
Coating: **Nitrile**  
Thickness: **1,06 mm (average)**  
Grip: **Rough**  
+ Eco Best Technology (EBT)

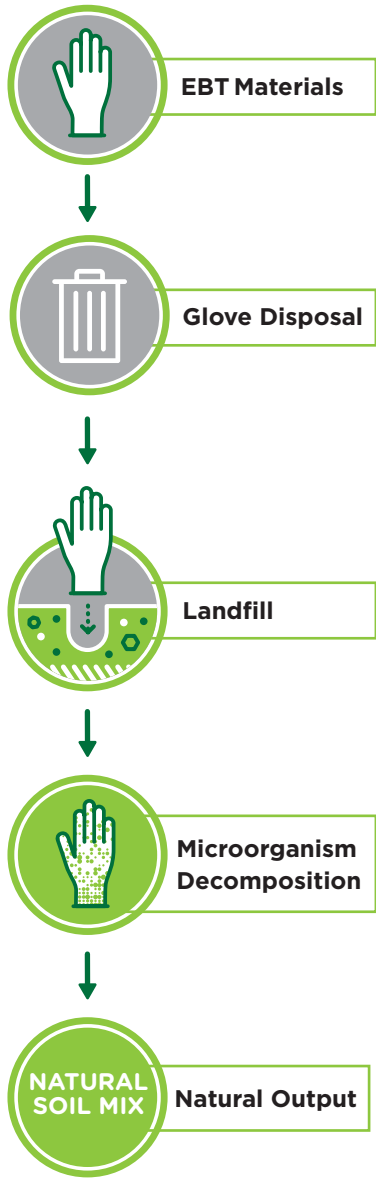
APPLICATIONS

- Chemical and pesticide handling and application in horticulture, agriculture
- Painting and spray workshops
- Chemical spray and treatment
- Coating preparation
- Food service/food prep
- Sanitation and dishwashing
- Washing and cleaning
- Deck crew
- Water/sewage treatment

REF	SIZE	LENGTH
NSK 24	8/S	355mm
NSK 24	9/M	355mm
NSK 24	10/L	355mm
NSK 24	11/XL	355mm



BIODEGRADATION  
PROCESS



SHOWA®  
CHM

Unsupported natural rubber/ neoprene coating with embossed grip over cotton flock lined

BENEFITS

- Flexible
- Increased sensitivity
- Chemical-resistant
- Neoprene over natural rubber

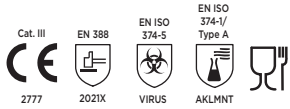
FEATURES

Liner: **Cotton flocked**  
Coating: **Neoprene over natural rubber**  
Thickness: **0,66mm**  
Grip: **Embossed**

APPLICATIONS

- Mechanical and engineering
- Painting and spray workshops
- Chemical spray and treatment
- Coating preparation
- Assembly dry and oily parts
- Washing and cleaning
- Food handling and food processing

REF	SIZE	LENGTH
CHM	7/S	305mm
CHM	8/M	305mm
CHM	9/L	305mm
CHM	10/XL	305mm



NEOPRENE



SHOWA®  
3415

Full neoprene coating over polyester liner

BENEFITS

- Extra grip
- Flexible
- Oil-resistant
- Chemical-resistant
- Increased dexterity
- Skin-friendly
- Seamless knit
- Acid-resistant

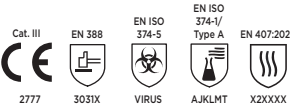
FEATURES

Liner: **Polyester**  
Coating: **Neoprene**  
Thickness: **1,78mm (average)**  
Grip: **Rough**  
**Strong chemical resistance**

APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Component assembly
- Pipe fitters
- Drilling
- Digging
- Deck crew
- Water/sewage treatment
- Plumbing

REF	SIZE	LENGTH
3415	8/S	355mm
3415	9/M	355mm
3415	10/L	355mm
3415	11/XL	355mm



SHOWA®  
3416

Full neoprene coating over engineered cut resistant liner

BENEFITS

- Cut-resistant
- Seamless knit
- Acid-resistant
- Flexible
- Extra grip
- Increased dexterity
- ANSI Cut Level E

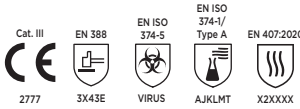
FEATURES

Liner: **HPPE**  
Coating: **Neoprene**  
Thickness: **~ 2,25mm (average)**  
Grip: **Rough**  
**Strong chemical resistance**

APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Handling glass and windows
- Window manufacturing
- Handling heavy equipment
- Drilling
- Deck crew

REF	SIZE	LENGTH
3416	8/S	355mm
3416	9/M	355mm
3416	10/L	355mm
3416	11/XL	355mm



CHEMICAL  
RESISTANCE GUIDE  
SHOWA® 3415 AND 3416

CHEMICAL AGENT	CAS NUMBER	EN 374-1 BDT
ACETALDEHYDE	75-07-0	>10
ACETONE	67-64-1	>30
BENZENE	71-43-2	>30
CYCLOHEXANE	110-82-7	>480
CYCLOHEXANONE	108-94-1	>120
DIISOBUTYL KETONE	108-83-8	>480
MEK	78-93-3	>10
METHANOL	67-56-1	>480
METHYL ISOPROPYL KETONE	563-80-4	>30
METHYLENE CHLORIDE	75-09-2	>10
OLEUM (20% FREE SO3)	8014-95-7	>120
PENTANE	109-66-0	>480
PHENOL, > 89%	108-95-2	>240
SULFURIC ACID, 96%	7664-93-9	>240
TETRACHLOROETHYLENE	127-18-4	>120
TOLUENE	108-88-3	>30
TOLUENE 2,4-DIISOCYANATE	584-84-9	>480
XYLENE	1330-20-7	>60



NEOPRENE



SHOWA®  
**6781R**

Rugged neoprene coating over cotton jersey liner

**BENEFITS**

- Burn protection
- Extra grip
- Abrasion-resistant
- Soft liner
- Chemical-resistant
- Cut-resistant
- Heat-resistant

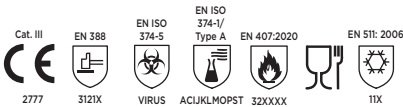
**FEATURES**

Liner: **Insulated cotton**  
Coating: **Neoprene**  
Grip: **Rough**

**APPLICATIONS**

- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Handling light chemicals in agriculture, horticulture

REF	SIZE	LENGTH
6781R	10/L	305mm



SHOWA®  
**6781R-06**

Strong neoprene coating with a nitrile insulated sleeve and rough grip

**BENEFITS**

- Chemical-resistant
- Burn protection
- Extra grip
- Abrasion-resistant
- Soft liner
- Cut-resistant
- Heat-resistant

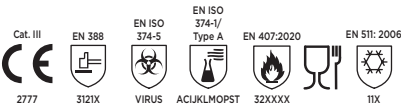
**FEATURES**

Liner: **Insulated cotton**  
Coating: **Neoprene**  
Grip: **Rough**

**APPLICATIONS**

- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Handling light chemicals in agriculture, horticulture

REF	SIZE	LENGTH
6781R-06	10/L	457mm



SHOWA®  
**6781R-145**

Strong neoprene coating with a nitrile insulated sleeve offering full arm protection

**BENEFITS**

- Burn protection
- Extra grip
- Abrasion-resistant
- Soft liner
- Chemical-resistant
- Cut-resistant
- Heat-resistant
- Full-arm protection

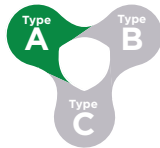
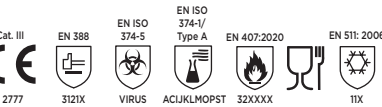
**FEATURES**

Liner: **Insulated cotton**  
Coating: **Neoprene**  
Grip: **Rough**

**APPLICATIONS**

- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Handling light chemicals in agriculture, horticulture

REF	SIZE	LENGTH
6781R-145	10/L	660mm



CHEMICAL | CUT | GENERAL PURPOSE | INSULATED | SINGLE USE | ANTI-STATIC

The 6781R is used to protect the hands against heat, working with temperatures up to 482°F or 250°C. The SHOWA® 6781R-145 offers full arm protection being 660mm long compared to the 6781R-06 at 457mm long.



## BUTYL



### SHOWA® 874

Unlined, unsupported butyl coating with smooth grip finish

#### BENEFITS

- Acid-resistant
- Impermeable
- Water-resistant

#### FEATURES

Liner: **Unlined**  
Coating: **Butyl**  
Thickness: **0,35mm**  
Grip: **Smooth**  
**Rollled cuff**

#### APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Fracking
- Drilling
- Deck crew

REF	SIZE	LENGTH
874	7/S	350mm
874	8/M	350mm
874	9/L	350mm
874	10/XL	350mm
874	11/XXL	350mm



### SHOWA® 874R

Unlined, unsupported butyl coating with rough grip finish

#### BENEFITS

- Acid-resistant
- Impermeable
- Water-resistant

#### FEATURES

Liner: **Unlined**  
Coating: **Butyl**  
Thickness: **0,35mm**  
Grip: **Rough**  
**Rollled cuff**

#### APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Washing and cleaning
- Public utility
- Pipe fitters
- Drilling
- Deck crew

REF	SIZE	LENGTH
874R	7/S	350mm
874R	8/M	350mm
874R	9/L	350mm
874R	10/XL	350mm
874R	11/XXL	350mm



### SHOWA® 878

Unlined, unsupported butyl coating with smooth grip finish

#### BENEFITS

- Acid-resistant
- Impermeable
- Water-resistant

#### FEATURES

Liner: **Unlined**  
Coating: **Butyl**  
Thickness: **0,70mm**  
Grip: **Smooth**  
**Rollled cuff**

#### APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops

REF	SIZE	LENGTH
878	8/M	350mm
878	9/L	350mm
878	10/XL	350mm
878	11/XXL	350mm

## VITON



### SHOWA® 890

Unlined viton over butyl coating with long sleeves

#### BENEFITS

- Acid-resistant
- Hydrocarbon-resistant
- Impermeable
- Forearm protection

#### FEATURES

Liner: **Unlined**  
Coating: **Viton® over Butyl**  
Thickness: **0,70mm**  
Grip: **Smooth**

#### APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Painting and spray workshops
- Washing and cleaning
- Fracking
- Pipe fitters

REF	SIZE	LENGTH
890	9/L	350mm
890	10/XL	350mm
890	11/XXL	350mm



### SHOWA® 892

Unlined viton over butyl coating

#### BENEFITS

- Acid-resistant
- Hydrocarbon-resistant
- Impermeable

#### FEATURES

Liner: **Unlined**  
Coating: **Viton® over Butyl**  
Thickness: **0,30mm**  
Grip: **Smooth**

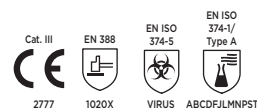
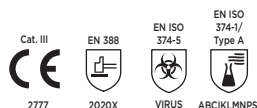
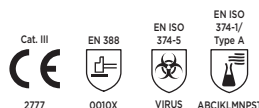
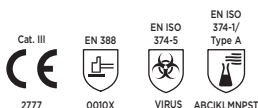
#### APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Fracking
- Drilling

REF	SIZE	LENGTH
892	7/S	300mm
892	8/M	300mm
892	9/L	300mm
892	10/XL	300mm
892	11/XXL	300mm



These chemical resistant gloves may look the same however, the SHOWA® 890 provides more protection against aggressive chemicals compared to the 892 which offers more dexterity and tactility being a thinner glove.



# KNOW YOU'RE PROTECTED

## HOW TO USE CHEMREST.COM



### SHOWA'S CHEMICAL LABORATORY SERVICES

As a premium service, SHOWA® offers a free comprehensive analysis of your chemical-resistant glove usage, for example to help with the latest EN 374 compliance requirements. At our in-house chemical laboratory, we are able to test any chemical or chemical mix you may be using. You receive a detailed report with glove recommendations based on your hazardous chemical usage. This program is designed to give the most cost-effective analysis and complete coverage of EN 374 requirements.

Find out more on [SHOWAgroup.com](http://SHOWAgroup.com)

### FIND THE RIGHT GLOVE

ChemRest.com is the world's first free, comprehensive chemical resistant research guide for hand protection. It features a user-intuitive navigation, an enhanced chemical search and the ability to compare various gloves against each other. Around the world, safety professionals can benefit from.

## PVC



### SHOWA® 650

Full PVC coating on the hand over cotton liner

#### BENEFITS

- Seamless knit
- Soft liner
- Impermeable
- Water-resistant
- Abrasion-resistant
- Flexible
- Chemical-resistant
- Robust grip
- Forearm protection

#### FEATURES

Liner: **Cotton**  
Coating: **PVC**  
Thickness: **1,30mm**  
Grip: **Rough**

#### APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Painting and spray workshops

REF	SIZE	LENGTH
650	8/M	250mm
650	9/L	250mm
650	10/XL	270mm
650	11/XXL	270mm



### SHOWA® 660

Full PVC coating over cotton liner long cuff offering forearm protection

#### BENEFITS

- Seamless knit
- Forearm protection
- Chemical-resistant
- Increased tactility
- Robust grip
- Water-resistant
- Durable
- Machine washable

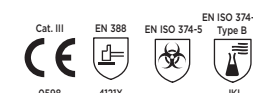
#### FEATURES

Liner: **Cotton**  
Coating: **PVC**  
Thickness: **1,30mm**  
Grip: **Rough**

#### APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Painting and spray workshops

REF	SIZE	LENGTH
660	8/M	300mm
660	9/L	300mm
660	10/XL	320mm
660	11/XXL	320mm



### SHOWA® 690

Full PVC coating over cotton liner, extended bond sleeves

#### BENEFITS

- Seamless knit
- Flexible
- Chemical-resistant
- Soft liner
- Full-arm protection
- Robust grip
- Water-resistant
- Impermeable

#### FEATURES

Liner: **Cotton**  
Coating: **PVC**  
Thickness: **1,30mm**  
Grip: **Rough**  
+ **Extended Bonded Sleeve**

#### APPLICATIONS

- Chemical spray and treatment
- Handling plants and vegetables
- Light chemical handling in horticulture, agriculture
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Washing and cleaning
- Pool/pond maintenance
- Public utility

REF	SIZE	LENGTH
690	8/M	650mm
690	9/L	650mm
690	10/XL	650mm





NITRILE



SHOWA®  
771

Full nitrile coating over cotton/polyester liner

BENEFITS

- Flexible
- Durable
- Abrasion-resistant
- Hydrocarbon-resistant
- Oil-resistant
- Robust grip
- Impermeable
- Forearm protection
- Soft liner

FEATURES

Liner: **Cotton/polyester**  
Coating: **Nitrile**  
Thickness: **0,50mm**  
Grip: **Rough**

APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops

REF	SIZE	LENGTH
771	8/M	300mm
771	9/L	300mm
771	10/XL	320mm



SHOWA®  
772

Full nitrile coating, on the hand over cotton/polyester liner with extended sleeve

BENEFITS

- Hydrocarbon-resistant
- Impermeable
- Full-arm protection
- Chemical-resistant
- Water-resistant
- Oil-resistant
- Robust grip
- Abrasion-resistant
- Increased tactility
- Flexible

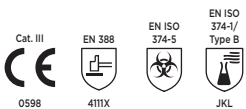
FEATURES

Liner: **Cotton/polyester**  
Coating: **Nitrile**  
Thickness: **0,50mm**  
Grip: **Rough**

APPLICATIONS

- Chemical spray and treatment
- Light chemical handling in horticulture, agriculture
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Pool/pond maintenance
- Water/sewage treatment

REF	SIZE	LENGTH
772	8/M	650mm
772	9/L	650mm
772	10/XL	650mm



SHOWA®  
NSK 26

Full nitrile coating with rough finish over cotton/polyester jersey liner with extended sleeve

BENEFITS

- Acid-resistant
- Oil-resistant
- Full-arm protection
- Robust grip
- Abrasion-resistant
- Water-resistant

FEATURES

Liner: **Cotton/polyester**  
Coating: **Nitrile**  
Thickness: **0,80mm**  
Grip: **Rough**

APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Life sciences
- Water/sewage treatment

REF	SIZE	LENGTH
NSK 26	8/S	650mm
NSK 26	9/M	650mm
NSK 26	10/L	650mm
NSK 26	11/XL	650mm



PVC



SHOWA®  
610

Full PVC coating over cotton liner

BENEFITS

- Seamless knit
- Flexible
- Chemical-resistant
- Impermeable
- Increased dexterity
- Water-resistant
- Durable
- Robust grip

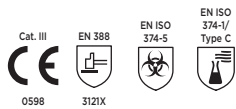
FEATURES

Liner: **Cotton**  
Coating: **PVC**  
Grip: **Rough**

APPLICATIONS

- Chemical spray and treatment
- Handling light chemicals in agriculture, horticulture
- Coating preparation
- Painting and spray workshops

REF	SIZE	LENGTH
610	8/M	250mm
610	9/L	250mm
610	10/XL	270mm
610	11/XXL	270mm



SHOWA®  
620

Full PVC coating over cotton liner, long cuffs

BENEFITS

- Acid-resistant
- Seamless knit
- Abrasion-resistant
- Extra grip
- Water-resistant
- Chemical-resistant
- Flexible
- Soft liner
- Forearm protection

FEATURES

Liner: **Cotton**  
Coating: **PVC**  
Grip: **Rough**

APPLICATIONS

- Chemical spray and treatment
- Handling light chemicals in agriculture, horticulture
- Coating preparation
- Painting and spray workshops

REF	SIZE	LENGTH
620	8/M	300mm
620	9/L	300mm
620	10/XL	320mm
620	11/XXL	320mm



Permeation

The process by which a chemical moves through protective glove materials at molecular level. The passage of a liquid or gas through the protective glove wall consists of three steps; absorption, diffusion and desorption.

Penetration

The process by which a substance moves through a defective glove coating (pinholes) in protective clothing on a non-molecular level.

Breakthrough Time

The number of minutes from initial contact with a test chemical until it is first detected on the inside of the protective glove material (coating), measured using sensitive analytical testing. It is essentially the time during which your skin is protected from the chemical(s) in contact with the glove.

Degradation

The deleterious change in one or more physical properties of a protective clothing material due to contact with a chemical. Degradation changes may include delaminating, discolouration, hardening or loss of tensile strength.

Concentration

The amount or mass of a constituent divided by the total mass of a solution. In permeation testing of acids, in particular, the concentration will affect the breakthrough time. More concentrated acids will permeate sooner than dilutions.



SHOWA®  
**640**

Full PVC coating, over cotton liner, with extended bonded sleeve

**BENEFITS**

- Acid-resistant
- Seamless knit
- Abrasion-resistant
- Extra grip
- Water-resistant
- Chemical-resistant
- Flexible
- Full-arm protection

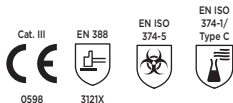
**FEATURES**

Liner: **Cotton**  
Coating: **PVC**  
Grip: **Rough**  
**Liquid-resistant vinyl sleeve**

**APPLICATIONS**

- Chemical spray and treatment
- Handling light chemicals in agriculture, horticulture
- Coating preparation
- Painting and spray workshops
- Laboratory, pharma and analysis

REF	SIZE	LENGTH
640	8/M	600mm
640	9/L	650mm
640	10/XL	650mm



The SHOWA® 640 offers full hand and arm protection against acids, chemicals, solvents, and liquids.



SHOWA®  
**160R**

Unsupported PVC glove

**BENEFITS**

- Lightweight
- Chemical-resistant
- Flexible
- Easy donning and doffing
- Impermeable
- Water-resistant

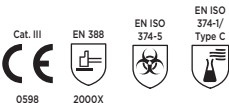
**FEATURES**

Liner: **Unlined**  
Coating: **PVC**  
Thickness: **0,30mm**  
Grip: **Embossed**

**APPLICATIONS**

- Chemical spray and treatment
- Coating preparation
- Maintenance
- Washing and cleaning

REF	SIZE	LENGTH
160R	8/M	300mm
160R	9/L	300mm
160R	10/XL	310mm



SHOWA®  
**B0700R**

Unsupported PVC glove

**BENEFITS**

- Form-fitting
- Easy donning and doffing
- Chemical-resistant
- Water-resistant
- Natural rubber

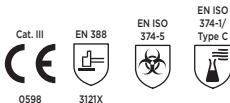
**FEATURES**

Liner: **Unsupported**  
Coating: **PVC**  
Thickness: **0,30mm**  
Grip: **Embossed**

**APPLICATIONS**

- Intricate parts handling
- Mechanical and engineering
- Painting and spray workshops
- Integrated circuits
- Semiconductors

REF	SIZE	LENGTH
B0700R	7/S	300mm
B0700R	8/M	300mm
B0700R	9/L	300mm
B0700R	10/XL	310mm



SHOWA®  
**B0710**

Unsupported PVC glove with extended bonded sleeve

**BENEFITS**

- Chemical-resistant
- Full-arm protection
- Lightweight
- Impermeable
- Flexible
- Easy donning and doffing

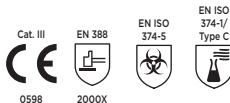
**FEATURES**

Liner: **Unsupported**  
Coating: **PVC**  
Thickness: **0,30mm**  
Grip: **Embossed**

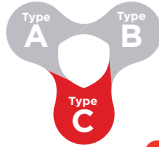
**APPLICATIONS**

- Chemical spray and treatment
- Coating preparation
- Pharmaceuticals and API
- Cleanrooms

REF	SIZE	LENGTH
B0710	7/S	600mm
B0710	8/M	600mm
B0710	9/L	600mm
B0710	10/XL	650mm



The SHOWA® B0710 is 600mm in length compared to 300mm with the B0700R. Offering full arm protection. Perfect for all kinds of chemical spray and treatment.







# CUT

To secure the handling of tools or objects with sharp edges or slippery surfaces, we make gloves and protective sleeves that not only resist cuts, but are also comfortable to wear, ensuring compliancy as well as safety. Whichever cut level you are looking for; SHOWA® provides all from level A to F.

## S-TEX®

### COMFORT AND SAFETY GO HAND IN HAND

At SHOWA® we continuously work on improving the wearing experience. Ergonomic shape design, seamless knit liner, engineered fibre for flexibility and tactility are just some of the common features found in our gloves. By making our gloves as comfortable as possible without compromising on safety, we hope that our users will keep the gloves on at all times and stay safe in their workplace. This is particularly important in work that requires high cut protection, because accidents here can lead to serious injuries with grave consequences for both the user and the employer.

### THE STORY OF HAGANE COIL®

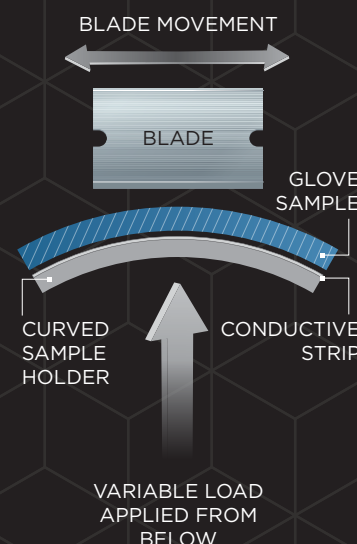
Our first notable liner for protection against mechanical risks was seamless knit nylon liner in glove B0500. Launched back in 1988. Ensuring both comfort and protection was our aim from the get-go. Sturdy nylon combined with world's first polyurethane palm coating offers both dexterity and good abrasion resistance for general purpose use. Encouraged by this success, over time, SHOWA® integrated new fibres and fibre combinations specifically for achieving higher cut resistance. Since then our cut protection gloves have come a long way. High Performance Polyethylene (HPPE) fibres first featured in SHOWA® 541 offer good cut resistance. Liners with integrated fibres such as the Kevlar® liner in GP-KV1 offer even better cut protection.

Development of new cut-resistant technology follows increasing demand for higher cut-resistant protection in work processes. While measuring the levels of cut resistance of different materials in the mesh of the glove, it became evident to our researchers that integration of stainless steel in liners could offer exceptional protection. The research led to development of the S-TEX® KV3. The Hagane Coil® engineered liner was born.

### STEEL PROTECTION

With Hagane Coil® technology we are able to provide high levels of cut resistance without sacrificing comfort. Hagane Coil® utilises a unique coiling technique that binds an attending yarn to a stainless steel core. The integrated steel core provides better protection than any natural or synthetic fibres, yet it is thin enough to allow flexibility and free movement as the hand bends and flexes. By utilising different composite yarns we can create different wearing experience. Soft yarns and stainless steel combinations offer more comfort and dexterity, while hard yarns and stainless steel offer superior protection and durability. It is a combination that offers maximum protection, comfort and performance.

- 1 Polyester / nylon
- 2 Stainless steel
- 3 Attending yarn (depending on glove)



The revised EN 388: 2016 standard for protective equipment against mechanical risks includes the international test method ISO 13997. This test method is widely used in the textile industry in order to gain a better understanding of the levels of protection. A glove sample is tested against a blade at a variable load in a TDM (Tomo Dynamo Meter) machine. The cut resistance is expressed as the cutting force at breakthrough in newtons (N)

At SHOWA®, for gloves with high levels of protection we have already been using ISO 13997 as a compulsory test to show our customer a detailed and realistic view of the glove's cut protection performance.



## S-TEX® SERIES p. 44-47

To provide better individual protection against cuts, SHOWA® has engineered several liners with Hagane Coil®. This has led to the forming of S-TEX® Series, a line that features the best cut resistant gloves that we have to offer.



SHOWA®  
**S-TEX®  
KV3**

Hagane Coil® / Natural rubber  
**ISO 13997: F**  
EN 388 Cut Level F



SHOWA®  
**S-TEX®  
581**

Hagane Coil® / Microporous foam Nitrile  
**ISO 13997: E**  
EN 388 Cut Level E



SHOWA®  
**S-TEX®  
300**

Hagane Coil® / Natural rubber  
**ISO 13997: D**  
EN 388 Cut Level D



SHOWA®  
**S-TEX®  
377**

Hagane Coil® / Foam nitrile over nitrile  
**ISO 13997: D**  
EN 388 Cut Level D



SHOWA®  
**S-TEX®  
376**

Hagane Coil® / Foam nitrile over nitrile  
**ISO 13997: D**  
EN 388 Cut Level D



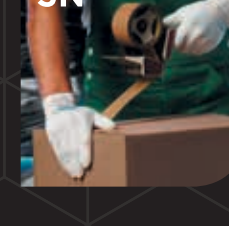
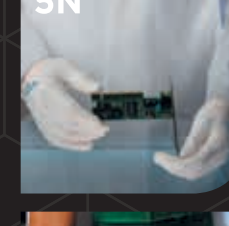
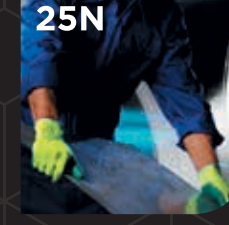
SHOWA®  
**S-TEX®  
350**

Hagane Coil® / Nitrile  
**ISO 13997: D**  
EN 388 Cut Level D



SHOWA®  
**S-TEX®  
377SC**

Hagane Coil® / Foam nitrile over nitrile  
**ISO 13997: D**  
EN 388 Cut Level D



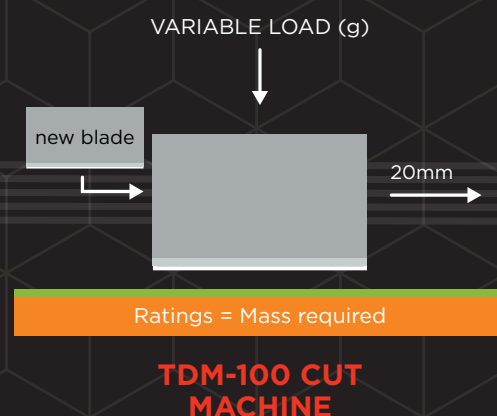
# WHAT YOU NEED TO KNOW ABOUT THE NEW GLOBAL CUT STANDARDS

## DIFFERENT TESTING METHODS

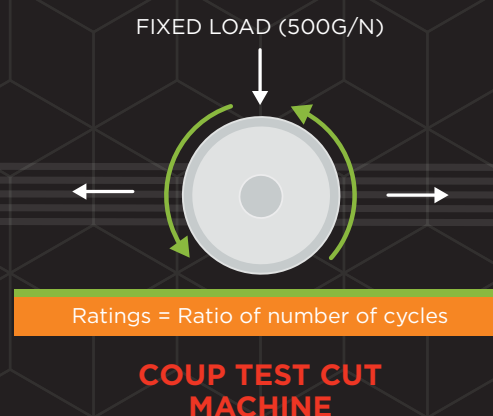
### EN 388: 2016 (ISO 13997)

- Uses Coup Test as well as the TDM-100 cut machine (ISO 13997) to test cut level to accommodate limitations (dulling of the blade) in the Coup Test when testing strong cut-resistant fabrics
- Coup Test measures number of cycles required to cut through the glove
  - > Reporting is 1 - 5
- TDM-100 measures NEWTONS of force up to 30+N
  - > Reporting is A - F

THE NEW NORM STATES THAT IF BLADE DULLING OCCURS DURING THE COUP TEST, THE ISO 13997 TEST METHOD USING TDM-100 MUST BE PERFORMED.



The Tomodynamometer (TDM-100) is used to determine the load required to cut through a glove sample using a straight-edge blade that moves along a straight path within a distance of 20mm. The sample is cut 5x each at three different loads.



Using a circular blade that moves back- and forth and under a fixed load of 500 grams, the Coup test machine measures the ratio of the number of cycles required to cut through the test sample vs. the reference material.

## UNDERSTANDING YOUR CUT GLOVE

### IDENTIFYING YOUR PROTECTION: REPORTING AND MARKINGS

### EN 388: 2016 (ISO 13997)

Abrasion: 0 - 4  
 Blade cut resistance (Coup Test): 0 - 5 / X  
 Tear: 0 - 4  
 Puncture: 0 - 4



**Cut Resistance – also ISO 13997(TDM-100): A - F/ X**  
**Impact: P / blank**

NEW

EN 388's testing method using only the Coup Test would at times result in two different gloves both having a cut level 5. However, after being tested with the ISO 13997 method where the TDM machine is used, the same gloves could score a cut level 5/C while the other an 5/E-a difference of up to 2000 grams of force! The new levels make it much easier to identify the different cut protection levels.

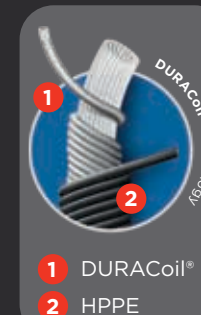
## ACROSS THE SCALE, SHOWA® HAS YOU COVERED

LOW CUT LEVEL NEEDED		MEDIUM CUT LEVEL NEEDED	HIGH CUT LEVEL NEEDED		
A	B	C	D	E	F
540D		4561	234	8110	8127
541		546X 546W	234X	S-TEX® 581	257
542		546	S-TEX® 377SC	3416	257X
545		346	S-TEX® 300	XC500	S-TEX® KV3
KV660		386	S-TEX® 350	XC800	
	576	S-TEX® 376			
	577	S-TEX® 377			
	GP-KV1	XC510			
	GP-KV2R	XC810			
		AC200			
		AC800			

### DURACOIL® SERIES

#### MULTI-PURPOSE CUT PROTECTION FOR CUT LEVEL C

The liner of every DURACoil® glove is engineered by tightly wrapping multifilament polyester around a cut resistant fibre, then reinforcing it with High-Performance Polyethylene (HPPE). The soft properties of HPPE combined with the unique coating styles of each model provides ultra-comfortable multi-purpose gloves with durable cut resistant properties for precision handling.



### TYPICAL APPLICATIONS

3N	5N	10N	15N	25N	30N	35N	40N
 Light material handling Small parts assembly (without sharp edges) Cardboard packaging General purpose Shipping & receiving	 Aircraft engine building & assembly White goods manufacturing Carbon fibre handling Recycling component dismantling	 Metal panels Small parts assembly (with sharp edges) Light automotive body assembly Sheet glass handling in production Electrical wire & Component assembly	 Steel fixing & erecting Medium pressing oily metal parts Canning & bottling Food preparation & processing Automotive maintenance & repairs	 Cable trunking Food deboning Glass & window handling Heavy pressing oily metal parts Metal cut-off recycling	 Meat processing Heavy duty glass & bottling Pulp & paper Heavy metal sheet handling Canning	 	 

USE THIS SCALE TO FIND OUT WHICH CUT LEVEL YOU NEED FOR THE APPLICATION AT HAND!

INCREASE OF RISK SEVERITY



CUT LEVEL A

CUT LEVEL B

CUT LEVEL B



SHOWA®  
**DS45**

HPPE arm cover

**BENEFITS**

- Full-arm protection
- Seamless knit
- Cut-resistant
- Natural rubber free

**FEATURES**

Liner: **HPPE**  
Coating: **Uncoated**  
+ One-size-fits-all, Elasticated wrist cuff

**APPLICATIONS**

- Bottling

REF	SIZE	LENGTH
DS45	ONE SIZE	450mm



SHOWA®  
**540D**

Polyurethane coating on palm over HPPE liner

**BENEFITS**

- Cut-resistant
- Machine washable
- Seamless knit
- Lightweight
- Form-fitting

**FEATURES**

Liner: **HPPE**  
Coating: **Polyurethane**  
Grip: **Foam**

**APPLICATIONS**

- Intricate parts handling
- Mechanical and engineering

REF	SIZE	LENGTH
540D	6/S	210mm
540D	7/M	220mm
540D	8/L	230mm
540D	9/XL	250mm
540D	10/XXL	260mm



SHOWA®  
**541**

Polyurethane coating on palm over HPPE liner

**BENEFITS**

- Seamless knit
- Cut-resistant
- Machine washable
- Extra grip
- Lightweight

**FEATURES**

Liner: **HPPE**  
Coating: **Polyurethane**  
Grip: **Foam**

**APPLICATIONS**

- Handling heavy equipment
- Mechanical and engineering
- Intricate parts handling
- Component assembly
- Canning
- Bottling

REF	SIZE	LENGTH
541	6/S	215mm
541	7/M	225mm
541	8/L	235mm
541	9/XL	250mm
541	10/XXL	265mm



SHOWA®  
**542**

Polyurethane coating on palm over HPPE liner reinforced coating makes gloves life longer

**BENEFITS**

- Seamless knit
- Flexible
- Form-fitting
- Breathable
- Abrasion-resistant
- Cut-resistant

**FEATURES**

Liner: **HPPE**  
Coating: **Polyurethane**  
Grip: **Foam**

**APPLICATIONS**

- Bottling
- Canning
- Component assembly
- White goods

REF	SIZE	LENGTH
542	6/S	210mm
542	7/M	220mm
542	8/L	230mm
542	9/XL	250mm
542	10/XXL	260mm



SHOWA®  
**545**

Nitrile coating on palm over HPPE liner

**BENEFITS**

- Cut-resistant
- Seamless knit
- Extra grip
- Flexible
- Breathable

**FEATURES**

Liner: **HPPE**  
Coating: **Nitrile**  
Grip: **Foam**

**APPLICATIONS**

- Automotive repairs and maintenance
- Maintenance
- Component assembly
- Dry parts assembly
- Carpentry

REF	SIZE	LENGTH
545	6/S	200mm
545	7/M	210mm
545	8/L	220mm
545	9/XL	230mm



SHOWA®  
**KV660**

Full PVC coating over Kevlar® liner

Kevlar® is a registered commercial trademark of DuPont

**BENEFITS**

- Seamless knit
- Abrasion-resistant
- Durable
- Cut-resistant
- Oil-resistant
- Water-resistant
- Machine washable
- Chemical-resistant

**FEATURES**

Liner: **Kevlar®**  
Coating: **PVC**  
Grip: **Rough**

**APPLICATIONS**

- Chemical spray and treatment
- Coating preparation
- Painting and spray workshops
- Bottling
- HVAC
- Plumbing
- Guttering and drain pipe
- Drainage, piping

REF	SIZE	LENGTH
KV660	8/M	300mm
KV660	9/L	300mm
KV660	10/XL	320mm
KV660	11/XXL	320mm





# [DURACOIL®]

**THE REVISION OF THE PPE REGULATIONS IN 2016 RESULTED IN A MARKET-WIDE DOWNGRADE IN EN 388 CUT LEVEL SCORES FOR RE-CERTIFIED PRODUCTS. ACROSS THE BOARD, GENERAL-PURPOSE GLOVES FOR MEDIUM-LOW RISKS DECREASED FROM CUT LEVEL 5-C TO 5-B AND UNDER.**

**CUT  
RESISTANT  
C**



Modern day users have access to enough information on the norm changes to take better responsibility for their cut protection needs. This created an increase in demand for more versatile solutions designed to meet safety and comfort requirements, at a lower price. On the other hand, research shows that many users still wear general purpose gloves with low cut resistance levels – the former EN 388 and ANSI cut 5 being B/ A2. This increases the risks of injuries and jeopardises workers' safety; ultimately a "lose-lose" situation for the industry.

At SHOWA®, we saw these changes as an opportunity to seriously evaluate our product offerings and asked ourselves: **Do our customers really want the cheapest hand-protection solution, or the best value for money?**

**We believe the answer is value for money, so our RandD team developed our latest SHOWA® technology, DURACOIL® – a cut resistant liner that increases the cut protection of multi-purpose gloves without compromising on comfort.**

DURACOIL® is comprised of two words:

- **DURABLE** = the gloves are designed for maximum comfort, to be worn for extended periods of time
- **COIL** = the wrapping technique where fibres are coiled over the others in layers



## HOW DOES IT WORK?

The DURACOIL® liner is engineered by tightly wrapping multifilament polyester around a cut resistant fibre, then reinforcing it with High-Performance Polyethylene (HPPE). The technique is very important to user comfort; if not done correctly, the fibres will irritate the skin. This therefore creates a premium lightweight yarn that offers comfort, durability, and increased cut protection.



- 1 DURACOIL®
- 2 HPPE

## WHAT IS MULTIFILAMENT YARN?

A high tenacity yarn that consists of many ultra-fine strands or filaments, wound together in an untwisted or unknotted way. These are smoother to touch, ultra-light and used for sturdy products, such as airbags, mooring lines for ships, and the strings of tennis rackets. Typical multifilament examples are Microfibre and Nanofibre.



## IMAGINE ALL YOU CAN DO WITH A CONSOLIDATED CUT SERIES

SHOWA® responds to market demands for a one-stop shop solution with a complete series of seven Cut C glove models, with SHOWA® quality and service at a nominal price.

The new DURACOIL® glove series caters to a wide range of needs and applications, offering a versatile new range that consolidates your glove inventory for optimised productivity and reduced costs.

By combining the fit, dexterity, and grip needed for multipurpose applications, with the upgraded DURACOIL® cut-resistant liner, we ensure safe, dry, and comfortable hands. Whether performing tasks in dry, greasy, oily, or wet environments, there are no more excuses to not wear gloves.

	Non-Abrasive	Lacerations and Snags	Durability and Tactility	Grip Handling Performance	Wet and Oil Grip Comfort		
	Dry and non-abrasive environments, composite handling	Assembling sharp metal parts and components	Handling parts and assembly in dry environments	General maintenance and logistics	Handling parts and assembly in humid environments	Assembling and handling sharp-edged objects and parts in light greasy and oily environments	Assembling and handling sharp-edged objects and parts in heavy oily environments
<b>546X</b> Uncoated	✋	✋					
<b>546</b> Polyurethane		✋	✋	✋			
<b>546W</b> White reinforced polyurethane		✋	✋	✋			
<b>346</b> Natural rubber			✋	✋	✋		
<b>386</b> Microporous nitrile		✋				✋	
<b>576</b> 3/4 nitrile, extra foam nitrile		✋					✋
<b>577</b> Fully dipped nitrile, extra foam nitrile		✋					✋



CUT LEVEL C

CUT LEVEL C



SHOWA®  
**DURACoil®  
546**

Polyurethane foam coating over engineered DURACoil® liner reinforced with HPPE

**BENEFITS**

- Seamless knit
- Cut-resistant
- Abrasion-resistant
- Breathable
- Flexible
- Form-fitting
- Increased dexterity
- Machine washable
- Natural rubber free

**FEATURES**

Liner: **HPPE glass fibre**  
Coating: **Polyurethane**  
Grip: **Foam**

**APPLICATIONS**

- Intricate parts handling
- Light assembly
- Mechanical and engineering
- Automotive repairs and maintenance
- Bottling
- Handling glass and windows

REF	SIZE	LENGTH
546	6/S	220mm
546	7/M	230mm
546	8/L	240mm
546	9/XL	250mm
546	10/XXL	270mm



SHOWA®  
**DURACoil®  
546W**

White reinforced polyurethane coating over engineered DURACoil® liner reinforced with HPPE

**BENEFITS**

- Seamless knit
- Cut-resistant
- Abrasion-resistant
- Breathable
- Flexible
- Form-fitting
- Increased dexterity
- Machine washable
- Natural rubber free

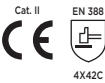
**FEATURES**

Liner: **HPPE glass fibre**  
Coating: **Polyurethane**  
Grip: **Foam**

**APPLICATIONS**

- Intricate parts handling
- Light assembly
- Mechanical and engineering
- Automotive repairs and maintenance
- Bottling
- Handling glass and windows

REF	SIZE	LENGTH
546W	6/S	220mm
546W	7/M	230mm
546W	8/L	240mm
546W	9/XL	250mm
546W	10/XXL	270mm



SHOWA®  
**DURACoil®  
546X**

Uncoated engineered DURACoil® liner reinforced with HPPE

**BENEFITS**

- Seamless knit
- Cut-resistant
- Abrasion-resistant
- Breathable
- Flexible
- Form-fitting
- Increased dexterity
- Machine washable
- Natural rubber free

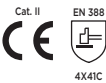
**FEATURES**

Liner: **HPPE glass fibre**  
Coating: **Uncoated**

**APPLICATIONS**

- Intricate parts handling
- Life sciences
- Semiconductors
- White goods
- Component assembly
- Quality control

REF	SIZE	LENGTH
546X	6/S	220mm
546X	7/M	225mm
546X	8/L	230mm
546X	9/XL	240mm



SHOWA®  
**DURACoil®  
346**

Natural rubber coating over engineered DURACoil® liner reinforced with HPPE

**BENEFITS**

- Cut-resistant
- Form-fitting
- Reusable
- Machine washable
- Flexible
- Increased dexterity
- Breathable
- Abrasion-resistant
- Seamless knit

**FEATURES**

Liner: **HPPE glass fibre**  
Coating: **Natural rubber**  
Grip: **Rough**

**APPLICATIONS**

- Repair glass and windows
- Steel fixing
- Handling glass and windows
- Plate glass production
- Window manufacturing

REF	SIZE	LENGTH
346	6/S	220mm
346	7/M	230mm
346	8/L	250mm
346	9/XL	260mm



SHOWA®  
**DURACoil®  
386**

Microporous nitrile coating over engineered DURACoil® liner reinforced with HPPE

**BENEFITS**

- Cut-resistant
- Form-fitting
- Reusable
- Machine washable
- Extra grip
- Flexible
- Increased dexterity
- Breathable
- Abrasion-resistant
- Seamless knit

**FEATURES**

Liner: **HPPE glass fibre**  
Coating: **Nitrile**  
Grip: **Foam**

**APPLICATIONS**

- Intricate parts handling
- Brick laying
- Flashings and seals
- Maintenance
- Steel fixing
- Component assembly

REF	SIZE	LENGTH
386	6/S	220mm
386	7/M	230mm
386	8/L	250mm
386	9/XL	260mm
386	10/XXL	270mm



The SHOWA® 386 is suitable for all environments with nitrile coating providing Extra grip. Whereas the SHOWA® 346 is natural rubber coated and better suited to dry environments where no oil or grease is present.



CUT LEVEL C



SHOWA®  
**DURACoil®  
576**

Foamed nitrile on ¾ dipped nitrile coating over engineered DURACoil® liner reinforced with HPPE

**BENEFITS**

- Cut-resistant
- Abrasion-resistant
- Breathable
- Flexible
- Increased dexterity
- Robust grip
- Form-fitting
- Machine washable

**FEATURES**

Liner: **HPPE, glass fibre**  
Coating: **Nitrile**  
Grip: **Foam**

**APPLICATIONS**

- Light assembly
- Mechanical and engineering
- Handling glass and windows
- Canning
- Mounting and dismantling

REF	SIZE	LENGTH
576	6/S	220mm
576	7/M	240mm
576	8/L	250mm
576	9/XL	260mm
576	10/XXL	270mm



SHOWA®  
**DURACoil®  
577**

Foamed nitrile on fully dipped nitrile coating over engineered DURACoil® liner reinforced with HPPE

**BENEFITS**

- Cut-resistant
- Abrasion-resistant
- Breathable
- Flexible
- Increased dexterity
- Robust grip
- Form-fitting
- Machine washable

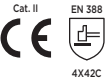
**FEATURES**

Liner: **HPPE, glass fibre**  
Coating: **Nitrile**  
Grip: **Foam**

**APPLICATIONS**

- Mechanical and engineering
- Plumbing
- Canning
- Mounting and dismantling
- Handling heavy equipment

REF	SIZE	LENGTH
577	6/S	250mm
577	7/M	265mm
577	8/L	275mm
577	9/XL	275mm
577	10/XXL	280mm



Thanks to engineered DURACoil® wrapping technology, both the SHOWA® 576 and 577 gloves protect the hands from a range of hazardous applications. With their nitrile coating delivering superior wet and dry grip.



The 576 is ¾ nitrile coated allowing breathability compared to the 577 which is fully coated for full protection against oil splashes.

CUT LEVEL C



SHOWA®  
**GP-KV1**

Natural rubber coating on palm over Kevlar® liner

Kevlar® is a registered commercial trademark of DuPont

**BENEFITS**

- Seamless knit
- Cut-resistant
- Flexible
- Durable
- Robust grip

**FEATURES**

Liner: **Kevlar®**  
Coating: **Natural rubber**  
Grip: **Rough**

**APPLICATIONS**

- Handling heavy equipment
- Bottling
- Handling glass and windows
- Canning
- Police and defence

REF	SIZE	LENGTH
GP-KV1	7/S	220mm
GP-KV1	8/M	230mm
GP-KV1	9/L	240mm
GP-KV1	10/XL	260mm



SHOWA®  
**GP-KV2R**

Nitrile coating on palm over Kevlar® liner

**BENEFITS**

- Durable
- Breathable
- Increased tactility
- Easy Movement

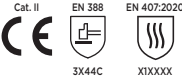
**FEATURES**

Liner: **Kevlar®**  
Coating: **Nitrile**  
Grip: **Rough**

**APPLICATIONS**

- Handling heavy equipment
- Bottling
- Handling glass and windows
- Canning
- Police and defence

REF	SIZE	LENGTH
GP-KV2R	7/S	220mm
GP-KV2R	8/M	230mm
GP-KV2R	9/L	240mm
GP-KV2R	10/XL	260mm



Whilst the GP-KV1 is made with a palm-dipped natural rubber coating, the GP-KV2R is made with a nitrile palm coating. Both models offer long lasting grip and have a seamless liner made with Kevlar®. The perfect gloves for handling heavy equipment, glass and windows.



CUT LEVEL C



DuPont™  
Kevlar®

SHOWA®  
4561

Sponge nitrile palm coating over engineered liner with Kevlar®

Kevlar® is a registered commercial trademark of DuPont

BENEFITS

- Seamless knit
- Form-fitting
- Cut-resistant
- Abrasion-resistant
- Flame-resistant
- Breathable
- Robust grip
- Lightweight

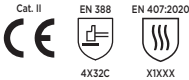
FEATURES

Liner: **Kevlar®**  
Coating: **Nitrile**  
Grip: **Foam**

APPLICATIONS

- Automotive repairs and maintenance
- Light assembly
- Assembly dry parts
- Bottling
- Handling glass and windows
- White goods
- HVAC

REF	SIZE	LENGTH
4561	6/S	210mm
4561	7/M	220mm
4561	8/L	235mm
4561	9/XL	240mm
4561	10/XXL	260mm



Engineered to endure, SHOWA® 4561 combines DuPont™ Kevlar® cut-resistance with oil grip to deliver exceptional cut, abrasion and light spark resistance, without sacrificing comfort or grip. Utilising SHOWA's renowned ergonomic design, 4561 naturally contours to your hand for maximum precision and dexterity.

CUT LEVEL D



SHOWA®  
234

Foam nitrile palm coating over spandex/engineered cut resistant liner reinforced with HPPE

BENEFITS

- Cut-resistant
- Flexible
- Breathable
- Lightweight
- Increased dexterity
- Machine washable
- Seamless knit
- Heat-resistant
- Form-fitting
- Abrasion-resistant

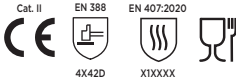
FEATURES

Liner: **Spandex, HPPE reinforced**  
Coating: **Nitrile**  
Grip: **Foam**

APPLICATIONS

- Light assembly
- HVAC
- Maintenance
- Mechanical and engineering
- Repair glass and windows
- Steel fabrication
- Washing and cleaning
- Component assembly

REF	SIZE	LENGTH
234	6/S	240mm
234	7/M	245mm
234	8/L	260mm
234	9/XL	275mm
234	10/XXL	290mm



SHOWA®  
234X

Uncoated spandex/engineered cut resistant liner reinforced with HPPE

BENEFITS

- Cut-resistant
- Flexible
- Breathable
- Lightweight
- Increased dexterity
- Machine washable
- Seamless knit
- Heat-resistant
- Form-fitting

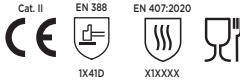
FEATURES

Liner: **Spandex, HPPE reinforced**  
Coating: **Uncoated**

APPLICATIONS

- Beverage
- Food packing and handling
- Food service/food prep
- Poultry, meat and seafood processing
- Canning

REF	SIZE	LENGTH
234X	6/S	255mm
234X	7/M	265mm
234X	8/L	275mm
234X	9/XL	295mm
234X	10/XXL	315mm



The SHOWA® 234 has a foam nitrile coating perfect for the automotive industry with contact heat resistance. Whilst the SHOWA® 234X is uncoated, designed for use in “knife hand” applications in food processing.



CUT LEVEL D



SHOWA®  
**S-TEX®  
300**

Palm natural rubber coating over Hagane Coil® liner (stainless steel/polyester)

**BENEFITS**

- Flexible
- Form-fitting
- Cut-resistant
- Increased dexterity
- Breathable
- Increased visibility

**FEATURES**

Liner: **Stainless steel, polyester**  
Coating: **Natural rubber**  
Grip: **Rough**

**APPLICATIONS**

- Handling heavy equipment
- Bottling
- Handling glass and windows
- Window manufacturing
- Canning
- White goods
- HVAC

REF	SIZE	LENGTH
S-TEX 300	7/S	240mm
S-TEX 300	8/M	250mm
S-TEX 300	9/L	260mm
S-TEX 300	10/XL	275mm



SHOWA®  
**S-TEX®  
350**

Palm nitrile coating over Hagane Coil® liner (stainless steel/polyester)

**BENEFITS**

- Flexible
- Abrasion-resistant
- Form-fitting
- Cut-resistant
- Increased dexterity
- Breathable
- Increased visibility
- Seamless knit

**FEATURES**

Liner: **Stainless steel, polyester**  
Coating: **Nitrile**  
Grip: **Rough**

**APPLICATIONS**

- Handling heavy equipment
- Automotive repairs and maintenance
- Bottling
- Handling glass and windows
- Canning
- White goods
- Assembly dry parts
- HVAC

REF	SIZE	LENGTH
S-TEX 350	7/S	240mm
S-TEX 350	8/M	250mm
S-TEX 350	9/L	260mm
S-TEX 350	10/XL	275mm



SHOWA®  
**S-TEX®  
376**

Dual nitrile coating technology, ¾ nitrile dipped with extra nitrile foam coating on palm over Hagane Coil® liner (stainless steel/polyester)

**BENEFITS**

- Flexible
- Form-fitting
- Cut-resistant
- Increased dexterity
- Breathable
- Seamless knit
- Oil-resistant

**FEATURES**

Liner: **Stainless steel, polyester**  
Coating: **Nitrile**  
Grip: **Foam**

**APPLICATIONS**

- Light assembly
- Steel fabrication
- Steel fixing
- Handling heavy equipment
- Handling glass and windows
- Canning
- Bottling
- HVAC

REF	SIZE	LENGTH
S-TEX 376	6/S	220mm
S-TEX 376	7/M	240mm
S-TEX 376	8/L	250mm
S-TEX 376	9/XL	260mm
S-TEX 376	10/XXL	270mm



CUT LEVEL D



SHOWA®  
**S-TEX®  
377**

Double-dipped, fully coated nitrile, with an extra nitrile foam coating on palm over Hagane Coil® liner (stainless steel/polyester)

**BENEFITS**

- Cut-resistant
- Abrasion-resistant
- Oil-resistant
- Form-fitting
- Increased dexterity
- Water-resistant
- Seamless knit

**FEATURES**

Liner: **Stainless steel, polyester**  
Coating: **Nitrile**  
Grip: **Foam**

**APPLICATIONS**

- Light assembly
- Steel fabrication
- Assembly dry and oily parts
- Handling glass and windows
- Canning
- Bottling
- Mounting and dismantling
- HVAC

REF	SIZE	LENGTH
S-TEX 377	6/S	250mm
S-TEX 377	7/M	265mm
S-TEX 377	8/L	275mm
S-TEX 377	9/XL	275mm
S-TEX 377	10/XXL	280mm



SHOWA®  
**S-TEX®  
376SC**

Dual nitrile coating technology, ¾ nitrile dipped with extra nitrile foam coating on palm over Hagane Coil® liner (stainless steel/polyester), and PVC/polyester safety cuff

**BENEFITS**

- Flexible
- Form-fitting
- Cut-resistant
- Increased dexterity
- Breathable
- Seamless knit
- Forearm protection

**FEATURES**

Liner: **Stainless steel, polyester**  
Coating: **Nitrile**  
Grip: **Foam**  
**+ Safety cuff**

**APPLICATIONS**

- Mechanical and engineering
- Drainage, piping
- HVAC
- Window manufacturing

REF	SIZE	LENGTH
S-TEX 376SC	7/M	300mm
S-TEX 376SC	8/L	300mm
S-TEX 376SC	9/XL	310mm
S-TEX 376SC	10/XXL	310mm



SHOWA®  
**S-TEX®  
377SC**

Double-dipped, fully coated nitrile with extra nitrile foam coating on palm over Hagane Coil® liner (stainless steel/polyester), and PVC/polyester safety cuff

**BENEFITS**

- Cut-resistant
- Abrasion-resistant
- Form-fitting
- Increased dexterity
- Water-resistant
- Seamless knit
- Forearm protection

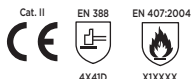
**FEATURES**

Liner: **Stainless steel, polyester**  
Coating: **Nitrile**  
Grip: **Foam**  
**+ Safety cuff**

**APPLICATIONS**

- Mechanical and engineering
- Drainage, piping
- HVAC
- Window manufacturing
- Construction (steel structure preparation, foundation engineering with liquid splashes)

REF	SIZE	LENGTH
S-TEX 377SC	7/M	300mm
S-TEX 377SC	8/L	300mm
S-TEX 377SC	9/XL	310mm
S-TEX 377SC	10/XXL	310mm





CUT LEVEL E



SHOWA®  
**S-TEX® 581**

Microporous foamed nitrile palm coating over Hagane Coil® liner (stainless steel/polyester) reinforced with Kevlar®

- BENEFITS**
- Cut-resistant
  - Extra grip
  - Abrasion-resistant
  - Breathable
  - Easy Movement
  - Seamless knit
  - Reusable
  - Form-fitting

**FEATURES**  
Liner: **Stainless steel, Kevlar®, polyester**  
Coating: **Nitrile**  
Grip: **Embossed foam**

- APPLICATIONS**
- Automotive repairs and maintenance
  - Maintenance
  - Light assembly
  - Mechanical and engineering
  - HVAC
  - Install electrical wiring
  - Screw and nail setting
  - Steel fixing
  - Handling glass and windows

REF	SIZE	LENGTH
S-TEX 581	6/S	235mm
S-TEX 581	7/M	245mm
S-TEX 581	8/L	260mm
S-TEX 581	9/XL	265mm
S-TEX 581	10/XXL	275mm



SHOWA®  
**3416**

Full neoprene coating over engineered cut protective liner

- BENEFITS**
- Cut-resistant
  - Seamless knit
  - Acid-resistant
  - Flexible
  - Extra grip
  - Increased dexterity

**FEATURES**  
Liner: **HPPE**  
Coating: **Neoprene**  
Grip: **Rough**

- APPLICATIONS**
- Chemical spray and treatment
  - Coating preparation
  - Handling glass and windows
  - Window manufacturing
  - Handling heavy equipment
  - Drilling
  - Deck crew

REF	SIZE	LENGTH
3416	8/S	355mm
3416	9/M	355mm
3416	10/L	355mm
3416	11/XXL	355mm



SHOWA®  
**8110**

Uncoated HPPE yarn

- BENEFITS**
- Machine washable
  - Cut-resistant
  - Increased dexterity
  - Breathable
  - Form-fitting

**FEATURES**  
Liner: **HPPE**  
Coating: **Uncoated**

- APPLICATIONS**
- Beverage
  - Food packing and handling
  - Poultry, meat and seafood processing
  - Bottling
  - Handling glass and windows
  - Canning
  - HVAC

REF	SIZE	LENGTH
8110	6/XS	230mm
8110	7/S	240mm
8110	8/M	255mm
8110	9/L	275mm

CUT LEVEL F



SHOWA®  
**8127**

Uncoated HPPE yarn

- BENEFITS**
- Machine washable
  - Cut-resistant
  - Breathable
  - Form-fitting

**FEATURES**  
Liner: **HPPE reinforced seamless knit**  
Coating: **Uncoated**

- APPLICATIONS**
- Food packing and handling
  - Poultry, meat and seafood processing
  - Handling glass and windows
  - Window manufacturing
  - Canning
  - Bottling
  - HVAC

REF	SIZE	LENGTH
8127	6/XS	230mm
8127	7/S	240mm
8127	8/M	255mm
8127	9/L	275mm
8127	10/XL	285mm



SHOWA®  
**257**

Foam nitrile palm coating over spandex liner reinforced with stainless steel and aramid

- BENEFITS**
- Cut-resistant
  - Increased dexterity
  - Lightweight
  - Breathable
  - Machine washable
  - Form-fitting
  - Abrasion-resistant
  - Touch screen compatible

**FEATURES**  
Liner: **Spandex, Aramid knit**  
Coating: **Nitrile**  
Grip: **Foam**

- APPLICATIONS**
- Automotive repairs and maintenance
  - Mechanical and engineering
  - Metal stamping
  - Handling glass and windows
  - Plate glass production
  - Window manufacturing
  - Component assembly

REF	SIZE	LENGTH
257	6/S	240mm
257	7/M	250mm
257	8/L	260mm
257	9/XL	270mm
257	10/XXL	280mm



SHOWA®  
**257X**

Spandex liner reinforced with stainless steel and aramid

- BENEFITS**
- Cut-resistant
  - Increased dexterity
  - Lightweight
  - Breathable
  - Machine washable
  - Form-fitting
  - Abrasion-resistant
  - Touch screen compatible

**FEATURES**  
Liner: **Spandex, Aramid knit**  
Coating: **Uncoated**

- APPLICATIONS**
- Automotive repairs and maintenance
  - Mechanical and engineering
  - Metal stamping
  - Handling glass and windows
  - Plate glass production
  - Window manufacturing
  - Component assembly

REF	SIZE	LENGTH
257X	6/S	255mm
257X	7/M	265mm
257X	8/L	275mm
257X	9/XL	285mm
257X	10/XXL	295mm



SHOWA®  
**S-TEX® KV3**

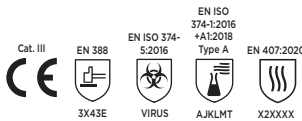
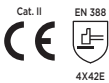
Palm natural rubber coating over Hagane Coil® liner (stainless steel/polyester) reinforced with Kevlar®

- BENEFITS**
- Flexible
  - Form-fitting
  - Cut-resistant
  - Increased dexterity
  - Breathable

**FEATURES**  
Liner: **Stainless steel, Kevlar®, polyester**  
Coating: **Natural rubber**  
Grip: **Rough**

- APPLICATIONS**
- Metal stamping
  - Demolition
  - Repair glass and windows
  - Steel fabrication
  - Plate glass production
  - HVAC
  - Drilling
  - Boiler maker

REF	SIZE	LENGTH
S-TEX KV3	7/S	240mm
S-TEX KV3	8/M	250mm
S-TEX KV3	9/L	260mm
S-TEX KV3	10/XL	275mm





## HIGH CUT-RESISTANCE

NEW

SHOWA®  
**XC500**

The new ultra-light XC500 combines level E cut-resistant seamless knit with a durable, abrasive-resistant polyurethane palm usable in various industrial applications.



### BENEFITS

- EN388 / ISO 13997: cut level E
- Flexible
- Increased dexterity
- Form-fitting
- Free of natural rubber

### FEATURES

Liner: **Stainless steel, polyester**  
Coating: **Polyurethane**  
Grip: **Foam**

### APPLICATIONS

- Handling heavy equipment
- Mechanical and engineering
- Maintenance and reparation with high cut risk
- Handling glass and windows
- Cutting tool handling

REF	SIZE	LENGTH
XC500	6/S	220mm
XC500	7/M	230mm
XC500	8/L	250mm
XC500	9/XL	260mm
XC500	10/XXL	270mm



## HIGH CUT-RESISTANCE

NEW

SHOWA®  
**XC800**

The new ultra-light XC800 combines level E cut-resistant seamless knit with a durable, oil-resistant microporous nitrile foam palm usable in various industrial applications.



### BENEFITS

- EN388 / ISO 13997: cut level E
- Flexible
- Increased dexterity
- Form-fitting
- Free of natural rubber

### FEATURES

Liner: **Stainless steel, polyester**  
Coating: **Nitrile**  
Grip: **Embossed foam**

### APPLICATIONS

- Handling heavy equipment
- Assembly of oil coated pieces
- Mechanical and engineering
- Maintenance and reparation with high cut risk
- Handling glass and windows

REF	SIZE	LENGTH
XC800	6/S	220mm
XC800	7/M	230mm
XC800	8/L	250mm
XC800	9/XL	260mm
XC800	10/XXL	270mm





NEW

## SHOWA® XC510

The new ultra-light XC510 combines level D cut-resistance with a durable, abrasive-resistant polyurethane palm usable in a wide variety of industrial applications.



Oeko-Tex® is a trademark of OTI-abbr for Institut für Ökologie, Technik und Innovation.

### BENEFITS

- EN388 / ISO 13997: cut level D
- Flexible
- Lightweight
- Increased dexterity
- Increased form-fitting and comfort thanks to thin 18G liner
- Free of natural rubber

### FEATURES

Liner: **HPPE/Nylon**  
Coating: **Polyurethane**  
Grip: **Foam**

### APPLICATIONS

- Handling heavy equipment
- Assembly with cut risk
- Mechanical and engineering
- Maintenance and reparation with cut risk
- Handling glass and windows

REF	SIZE	LENGTH
XC510	6/S	220mm
XC510	7/M	230mm
XC510	8/L	250mm
XC510	9/XL	260mm
XC510	10/XXL	270mm



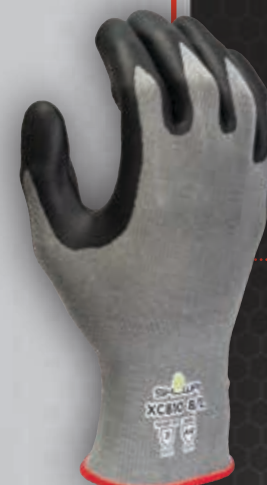
## HIGH CUT-RESISTANCE



NEW

## SHOWA® XC810

The new ultra-light XC810 combines an excellent grip, superb tactility, level D cut-resistance and touchscreen compatibility for a multitude of industrial applications.



### BENEFITS

- EN388 / ISO 13997: cut level D
- Flexible
- Lightweight
- Increased dexterity
- Increased form-fitting and comfort thanks to thin 18G liner
- Touchscreen compatible
- Free of natural rubber
- Fingerprint-free
- Silicone-free

### FEATURES

Liner: **HPPE/Nylon**  
Coating: **Nitrile**  
Grip: **Embossed foam**

### APPLICATIONS

- Handling heavy equipment
- Assembly with cut risk in oily environment
- Mechanical and engineering
- Maintenance and reparation with cut risk
- Handling glass and windows

REF	SIZE	LENGTH
XC810	6/S	220mm
XC810	7/M	230mm
XC810	8/L	250mm
XC810	9/XL	260mm
XC810	10/XXL	270mm





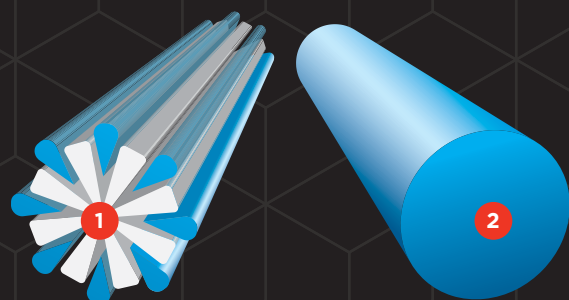


# GENERAL PURPOSE

There are often many low-grade risks in the workplace that require a generalist protective approach. To protect the hand from common mechanical or chemical hazards while preserving mobility: we made our name by providing the very best in all-round, multi-purpose hand protection.

## MICROFIBRE TECHNOLOGY

At SHOWA® we believe that comfort is as important as the protection, which is why we reduced the weight and improved the efficiency of our new model. In order to offer this premium combination, we engineered a microfibre fabric.



- 1 Microfibre
- 2 Cotton Fibre

### WHAT IS MICROFIBRE?

Microfibre is a synthetic fabric with very small fibres or threads. The diameter of microfibre is about 20 times smaller than human hair. The most common types of microfibres are made from polyesters, polyamides or a combination of polyester, polyamide and polypropylene.

Microfibre is used to make mats, knits and weaves for apparel, upholstery, industrial filters and cleaning products. The shape, size and combinations of synthetic fibres are selected for specific characteristics, including softness, toughness, absorption and water filtering.

### MICROFIBRE FACTS: HIGH PERFORMANCE AND LOW MAINTENANCE FABRICS

BREATHABLE FABRIC



COMFORT IS SIMILAR TO NATURAL FIBRES AND SOFT



ENHANCED DURABILITY



EASILY MAINTAINED AND CLEANED



RETAINS ORIGINAL SHAPE



HIGH-PERFORMANCE MOISTURE-WICKING ABILITY



LIGHTWEIGHT



Microfibre fabric is widely used in the clothing industry because of its absorption property. Athletes often use microfibre clothing, such as cycling jerseys, to improve their performances during competitions, as it provides a high capacity to absorb sweat while avoiding irritation.



### TAKE COMFORT AND PROTECTION TO THE NEXT LEVEL

Professionals need optimised grip and maximum comfort when performing tasks that require extended wear and durability while keeping hands dry and cool at the same time.

For workers who move between tasks from general handling to intricate assembly, requiring high abrasion performance, dexterity, finger sensitivity and comfort, SHOWA® 381 is the ideal multipurpose solution. It provides the lightest SHOWA® microporous nitrile coated glove supported by a microfibre liner with an abrasion resistance of level 4.

Only fibres smaller than 1 denier can be called microfibres. The 381 microfibre is 0.52 denier thick and the whole glove weighs only 19 grams.

Its comfort is further enhanced as breathability and moisture evaporation has increased by 20% compared to our standard offering.

### HOW DOES IT WORK?

Firstly, the microporous nitrile coating in 381 grants exceptional grip while allowing warm air and moisture from inside to escape, thus keeping your hands dry.

Secondly, the microfibre liner absorbs perspiration and moisture quickly. Due to the cohesive properties of water, the water molecules are pulled along the thin fibres of the microfibre material. The large surface area created by numerous fibres allows microfibre materials to hold over 6 times their weight in liquid. At the same time the larger surface area and heat from the hand trigger faster evaporation, where drying time is 20% shorter than our standard gloves.

This results in cooler and dryer hands.



# BREATHEX FOAM TECHNOLOGY

## THE ULTIMATE OUTDOOR COMPANION

At SHOWA® we believe that innovation makes sense when it actually contributes to something useful. Research shows the majority of workers use natural rubber palm coated gloves for construction, logistics and general handling - outdoor work environments where they are exposed to changeable weather conditions all year round.

During dry and hot temperatures, wearing gloves causes hand to sweat and creates perspiration inside the glove. In cold and wet seasons, users wear fully coated glove to keep hand clean, dry and warm. This means changing gloves depending on climate and outdoor conditions. For the same task, users may need 2 different types of glove, resulting double purchase and/or the wrong glove for each season.

**SO WE SAID: DRY, WET, WARM, COLD...  
WHY DO WE ALWAYS HAVE TO CHOOSE?**

### WHAT IS BREATHEX FOAM TECHNOLOGY?

Based on these findings, **SHOWA® designed the ultimate outdoor companion SHOWA® 306 using BREATHEX FOAM TECHNOLOGY** - a revolutionary dual natural rubber coating technology that allows the glove to be both **BREATHABLE** and **LIQUID RESISTANT**.

The combination of full foam natural rubber doubled with natural rubber coating on the palm is the only alternative solution for workers to be protected with one glove.

SHOWA® 306 provides premium grip and dexterity with breathability in dry or wet environments, whatever the outdoor conditions are.

### HOW DOES IT WORK?

- 1 Aerated natural rubber foam covers 13 gauge liner to allow warm air to escape, so your hands can breath and perspiration is reduced
- 2 Full foam natural rubber coating is impermeable, protecting from liquid penetrating the glove and therefore keeping your hands dry
- 3 Extra natural rubber coating on palm and fingers provides excellent grip and dexterity.

### THE ULTIMATE WINTER COMPANION

After the success of SHOWA® 306, we took all the great features of this glove and built upon them to create SHOWA® 406. The new 406 has an added inner liner that is loop knitted, offering additional thermal insulation down to -30°C and a soft texture to the skin. For general handling in cold environment that requires abrasion, liquid, cold and wind resistance, SHOWA® 406 is your ultimate WINTER companion.



### HOW DOES IT WORK?

**ONE SOLUTION FOR ALL PURPOSES, WHATEVER THE OUTDOOR CONDITIONS ARE:**

- 1 Aerated natural rubber foam for breathability and reduced perspiration
- 2 Impermeability protects from liquid penetration
- 3 Natural rubber coating offers high level of grip and abrasion
- 4 Soft comfort and premium fit thanks to SHOWA's hand shape technology
- 5 High level of flexibility due to engineered coating
- 6 Ergonomic design that replicates the natural curvature of human hand, thereby reducing hand fatigue.

### ADDITIONAL BENEFITS 406

- Water-repellent surface combined with thermal insulated liner keep hands warm and dry enhancing more productive long work periods
- Aerated material reduces cold conduction and eliminates convection by keeping warm air inside
- Orange colour of 406 enhances safety in low light conditions and prevents from loss

### RECOMMENDED APPLICATIONS



### SHOWA® 306 (P.63) GENERAL PURPOSE

- Ergonomic
- Aerated natural rubber foam coating
- Dual natural rubber coating

### SHOWA® 406 (P.76) COLD PROTECTION

- Fluorescent
- Insulated
- Rough grip

NITRILE



SHOWA®  
265R

Palm nitrile coating over nylon liner

BENEFITS

- Breathable
- Form-fitting
- Seamless knit
- Hydrocarbon-resistant
- Abrasion-resistant
- Flexible

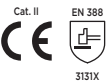
FEATURES

Liner: **Nylon**  
Coating: **Nitrile**  
Grip: **Flat nitrile**

APPLICATIONS

- Automotive repairs and maintenance
- Intricate parts handling
- Light assembly
- Handling plants and vegetables
- Harvesting
- Planting and repotting
- Dry parts assembly
- Component assembly

REF	SIZE	LENGTH
265R	6/S	240mm
265R	7/M	240mm
265R	8/L	250mm
265R	9/XL	270mm



SHOWA®  
370 Black

Palm nitrile coating over black nylon liner

BENEFITS

- Flexible
- Form-fitting
- Extra grip
- Increased dexterity
- Seamless knit
- Machine washable

FEATURES

Liner: **Nylon**  
Coating: **Nitrile**  
Grip: **Flat nitrile**

APPLICATIONS

- Handling plants and vegetables
- Automotive repairs and maintenance
- Maintenance
- Intricate parts handling
- Light assembly
- Planting and repotting
- Harvesting
- Component assembly
- Shipping/receiving

REF	SIZE	LENGTH
370B	6/S	200mm
370B	7/M	220mm
370B	8/L	230mm
370B	9/XL	250mm
370B	10/XXL	260mm



SHOWA®  
370 White

Palm nitrile coating over white nylon liner

BENEFITS

- Machine washable
- Seamless knit
- Form-fitting
- Flexible
- Extra grip
- Breathable

FEATURES

Liner: **Nylon**  
Coating: **Nitrile**  
Grip: **Flat nitrile**

APPLICATIONS

- Handling plants and vegetables
- Automotive repairs and maintenance
- Maintenance
- Light assembly
- Planting and repotting
- Harvesting
- Component assembly
- Quality control

REF	SIZE	LENGTH
370W	5/XS	200mm
370W	6/S	200mm
370W	7/M	220mm
370W	8/L	230mm
370W	9/XL	250mm
370W	10/XXL	260mm



NITRILE



SHOWA®  
376R

3/4 dipped nitrile with extra foam nitrile coating on palm over polyester/nylon liner

BENEFITS

- Seamless knit
- Flexible
- Extra grip
- Breathable

FEATURES

Liner: **Polyester/nylon**  
Coating: **Nitrile**  
Grip: **Foam**

APPLICATIONS

- Mechanical and engineering
- Automotive repairs and maintenance
- Light assembly

REF	SIZE	LENGTH
376R	6/S	220mm
376R	7/M	240mm
376R	8/L	250mm
376R	9/XL	260mm
376R	10/XXL	270mm



SHOWA®  
377IP

Fully dipped nitrile with extra nitrile foam coating over polyester/nylon liner reinforced with engineered anti-impact protection

BENEFITS

- Impact-resistant
- Natural rubber free
- Abrasion-resistant
- Seamless knit
- Durable

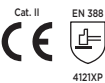
FEATURES

Liner: **Polyester/nylon**  
Coating: **Nitrile**  
Grip: **Foam**

APPLICATIONS

- Handling heavy equipment
- Signalers
- Metal Stamping
- Concreting
- Demolition
- Mounting and dismantling
- Component assembly
- Automotive repairs and maintenance
- Drilling
- Deck crew

REF	SIZE	LENGTH
377-IP	7/M	265mm
377-IP	8/L	275mm
377-IP	9/XL	275mm
377-IP	10/XXL	280mm



SHOWA®  
377

Fully dipped nitrile with extra nitrile foam coating finish over polyester/nylon liner

BENEFITS

- Flexible
- Form-fitting
- Breathable
- Seamless knit
- Natural rubber free

FEATURES

Liner: **Polyester/nylon**  
Coating: **Nitrile**  
Grip: **Foam**

APPLICATIONS

- Automotive repairs and maintenance
- Maintenance
- Concreting
- Mortar
- Washing and cleaning
- Light assembly

REF	SIZE	LENGTH
377	6/S	250mm
377	7/M	265mm
377	8/L	275mm
377	9/XL	275mm
377	10/XXL	280mm





NITRILE



SHOWA®  
350R

Palm nitrile coating over polyester/cotton liner

BENEFITS

- Increased dexterity
- Flexible
- Extra grip
- Seamless knit
- Lightweight

FEATURES

Liner: **Polyester/cotton**  
Coating: **Nitrile**  
Grip: **Rough**

APPLICATIONS

- Handling plants and vegetables
- Automotive repairs and maintenance
- Maintenance
- Handling heavy equipment
- Light assembly

REF	SIZE	LENGTH
350R	7/S	220mm
350R	8/M	255mm
350R	9/L	255mm
350R	10/XL	260mm



SHOWA®  
380

Microporous nitrile coating on palm over nylon liner

BENEFITS

- Extra grip
- Seamless knit
- Skin-friendly
- Breathable
- Increased dexterity
- Form-fitting

FEATURES

Liner: **Nylon/polyester**  
Coating: **Nitrile**  
Grip: **Embossed foam**

APPLICATIONS

- Automotive repairs and maintenance
- Intricate parts handling
- Light assembly
- Shuttering
- White goods

REF	SIZE	LENGTH
380	6/S	220mm
380	7/M	230mm
380	8/L	250mm
380	9/XL	260mm



Oeko-Tex® is a trademark of OTI-abbr for Institut für Ökologie, Technik und Innovation.

SHOWA®  
382

Microporous nitrile coating over engineered microfibre liner

BENEFITS

- Silicone free
- Durable
- Robust grip
- Breathable
- Form-fitting
- Natural rubber free
- Abrasion-resistant
- Fingerprint-free

FEATURES

Liner: **Nylon/polyester**  
Coating: **Nitrile**  
Grip: **Embossed foam**

APPLICATIONS

- Automotive repairs and maintenance
- Intricate parts handling
- Light assembly
- Mechanical and engineering

REF	SIZE	LENGTH
382	6/S	220mm
382	7/M	230mm
382	8/L	250mm
382	9/XL	260mm
382	10/XXL	270mm



NITRILE



SHOWA®  
381

Microporous nitrile coating over engineered microfibre liner

BENEFITS

- Abrasion-resistant
- Increased dexterity
- Breathable
- Flexible
- Increased sensitivity
- Form-fitting
- Natural rubber free
- Reusable

FEATURES

Liner: **Nylon/polyester**  
Coating: **Nitrile**  
Grip: **Embossed foam**

APPLICATIONS

- Intricate parts handling
- Light assembly
- Mechanical and engineering
- Automotive repairs and maintenance
- Shuttering
- Dry parts assembly
- Component assembly
- General purpose
- Heavy equipment operation
- Supervising
- Tool operation
- Transporting

REF	SIZE	LENGTH
381	6/S	220mm
381	7/M	230mm
381	8/L	250mm
381	9/XL	260mm
381	10/XXL	270mm



NEW

EBT



ASTM A597  
D5528 D5511

SHOWA®  
383

Microporous nitrile coating over biodegradable polyester liner

BENEFITS

- Biodegradable
- Abrasion-resistant
- Increased dexterity
- Breathable
- Flexible
- Increased sensitivity
- Form-fitting
- Natural rubber free
- Reusable

FEATURES

Liner: **Polyester**  
Coating: **Nitrile**  
Grip: **Embossed foam**

APPLICATIONS

- Intricate parts handling
- Light assembly
- Mechanical and engineering
- Automotive repairs and maintenance
- Shuttering
- Dry parts assembly
- Component assembly
- General purpose
- Heavy equipment operation
- Supervising
- Tool operation
- Transporting

REF	SIZE	LENGTH
383	7/S	220mm
383	7/M	230mm
383	8/L	250mm
383	9/XL	260mm
383	10/XXL	270mm



NITRILE



SHOWA®  
4400

Nitrile coating over cotton jersey liner

BENEFITS

- Flexible
- Increased sensitivity
- Abrasion-resistant
- Soft liner

FEATURES

Liner: **Cotton jersey**  
Coating: **Nitrile**  
Grip: **Smooth**

APPLICATIONS

- Automotive repairs and maintenance
- Dry parts assembly
- Light assembly

REF	SIZE	LENGTH
4400	7/S	220mm
4400	8/M	230mm
4400	9/L	240mm
4400	10/XL	260mm



SHOWA®  
4400Y

¾ nitrile coating over cotton jersey liner

BENEFITS

- Flexible
- Increased sensitivity
- Abrasion-resistant
- Soft liner
- Increased visibility

FEATURES

Liner: **Cotton jersey**  
Coating: **Nitrile**  
Grip: **Smooth**

APPLICATIONS

- Automotive repairs and maintenance
- Dry parts assembly
- Light assembly

REF	SIZE	LENGTH
4400Y	7/S	220mm
4400Y	8/M	230mm
4400Y	9/L	240mm
4400Y	10/XL	260mm



SHOWA®  
7000

Full nitrile coating over cotton jersey liner with knit wrist

BENEFITS

- Abrasion-resistant
- Oil-resistant
- Water-resistant
- Robust grip
- Reusable
- Impermeable

FEATURES

Liner: **Cotton jersey**  
Coating: **Nitrile**  
Grip: **Smooth**

APPLICATIONS

- Handling heavy equipment
- Mounting and dismantling
- Washing and cleaning
- Public utility

REF	SIZE	LENGTH
7000	8/S	260mm
7000	9/M	260mm
7000	10/L	260mm



NITRILE



SHOWA®  
7066

¾ nitrile coating over cotton jersey liner with reinforced safety cuff

BENEFITS

- Abrasion-resistant
- Flexible
- Oil-resistant
- Breathable
- Impermeable

FEATURES

Liner: **Cotton jersey**  
Coating: **Nitrile**  
Grip: **Smooth**

+ Safety cuff

APPLICATIONS

- Public utility
- Cutting roses and thorns
- Washing and cleaning
- Drainage, piping
- Guttering and drain pipe
- Plumbing
- Water/sewage treatment

REF	SIZE	LENGTH
7066	8/S	260mm
7066	9/M	260mm
7066	10/L	260mm



SHOWA®  
7166

Nitrile coating over cotton jersey liner with reinforced safety cuff

BENEFITS

- Abrasion-resistant
- Flexible
- Impermeable

FEATURES

Liner: **Cotton jersey**  
Coating: **Nitrile**  
Grip: **Smooth**

+ Safety cuff

APPLICATIONS

- Chemical spray and treatment
- Cutting roses and thorns
- Public utility
- Washing and cleaning
- Drainage, piping
- Guttering and drain pipe
- Plumbing
- Water/sewage treatment

REF	SIZE	LENGTH
7166	9/M	260mm
7166	10/L	260mm



SHOWA®  
7199NC

Full nitrile coating with nitrile reinforced gauntlet over cotton jersey liner

BENEFITS

- Abrasion-resistant
- Oil-resistant
- Flexible

FEATURES

Liner: **Cotton jersey**  
Coating: **Nitrile**  
Grip: **Smooth**

APPLICATIONS

- Chemical spray and treatment
- Cutting roses and thorns
- Public utility
- Washing and cleaning

REF	SIZE	LENGTH
7199NC	10/L	260mm





NATURAL RUBBER



SHOWA®  
**310 Orange**

Natural rubber palm coating  
over polyester/cotton liner

**BENEFITS**

- Robust grip
- Form-fitting
- Breathable
- Increased dexterity
- Seamless knit
- Increased visibility

**FEATURES**

Liner: **Polyester/cotton**  
Coating: **Natural rubber**  
Grip: **Rough**

**APPLICATIONS**

- Handling plants and vegetables
- Carpentry
- Driving machines
- Guttering and drain pipe
- Maintenance
- Masonry
- Planting and repotting
- Wood cutting
- Public utility
- Shipping/receiving
- Handling heavy equipment

REF	SIZE	LENGTH
310 O	7/S	220mm
310 O	8/M	230mm
310 O	9/L	240mm
310 O	10/XL	260mm



SHOWA®  
**310 Green**

Natural rubber palm coating  
over polyester/cotton liner

**BENEFITS**

- Robust grip
- Form-fitting
- Breathable
- Increased dexterity
- Seamless knit

**FEATURES**

Liner: **Polyester/cotton**  
Coating: **Natural rubber**  
Grip: **Rough**

**APPLICATIONS**

- Handling plants and vegetables
- Carpentry
- Driving machines
- Guttering and drain pipe
- Maintenance
- Masonry
- Planting and repotting
- Wood cutting
- Public utility
- Shipping/receiving
- Handling heavy equipment

REF	SIZE	LENGTH
310 G	6/XS	200mm
310 G	7/S	220mm
310 G	8/M	230mm
310 G	9/L	240mm
310 G	10/XL	260mm
310 G	11/XXL	280mm



SHOWA®  
**310 Black**

Natural rubber palm coating  
over polyester/cotton liner

**BENEFITS**

- Robust grip
- Form-fitting
- Breathable
- Increased dexterity
- Seamless knit

**FEATURES**

Liner: **Polyester/cotton**  
Coating: **Natural rubber**  
Grip: **Rough**

**APPLICATIONS**

- Handling plants and vegetables
- Carpentry
- Driving machines
- Guttering and drain pipe
- Maintenance
- Masonry
- Planting and repotting
- Wood cutting
- Public utility
- Shipping/receiving
- Handling heavy equipment

REF	SIZE	LENGTH
310 B	7/S	220mm
310 B	8/M	230mm
310 B	9/L	240mm
310 B	10/XL	260mm



SHOWA®  
**306**

Full foam natural rubber coating  
doubled with natural rubber on  
palm over nylon/polyester liner

**BENEFITS**

- Form-fitting
- Flexible
- Increased dexterity
- Breathable
- Water-resistant
- Extra grip
- Seamless knit

**FEATURES**

Liner: **Nylon/polyester**  
Coating: **Natural rubber**  
Grip: **Rough**

**APPLICATIONS**

- Handling heavy equipment
- Signalers
- Brick laying
- Drainage, piping
- Guttering and drain pipe
- Insulation
- Plumbing
- Roofing application membranes
- Washing and cleaning
- Pool/pond maintenance

REF	SIZE	LENGTH
306	6/S	230mm
306	7/M	240mm
306	8/L	250mm
306	9/XL	270mm
306	10/XXL	290mm



NATURAL RUBBER



SHOWA®  
**305**

¾ Natural rubber coating over polyester/cotton liner

BENEFITS

- Extra grip
- Form-fitting
- Increased dexterity

FEATURES

Liner: **Polyester/cotton**  
Coating: **Natural rubber**  
Grip: **Rough**

APPLICATIONS

- Construction
- Labouring
- Public sector
- Gardening

REF	SIZE	LENGTH
305	7/S	230mm
305	8/M	230mm
305	9/L	250mm
305	10/XL	260mm



SHOWA®  
**317**

Natural rubber palm coating over polyester liner

BENEFITS

- Seamless knit
- Form-fitting
- Extra grip
- Breathable
- Increased visibility

FEATURES

Liner: **Polyester**  
Coating: **Natural rubber**  
Grip: **Rough**

APPLICATIONS

- Handling heavy equipment
- Signalers
- Maintenance
- Slings and signalers
- Shipping/receiving

REF	SIZE	LENGTH
317	7/S	220mm
317	8/M	230mm
317	9/L	240mm
317	10/XL	260mm



SHOWA®  
**330**

Natural rubber palm coating over polyester/cotton liner with reinforced coating at thumb crotch

BENEFITS

- Abrasion-resistant
- Extra grip
- Breathable
- Seamless knit

FEATURES

Liner: **Polyester/cotton**  
Coating: **Natural rubber**  
Grip: **Rough**

APPLICATIONS

- Handling heavy equipment
- Automotive repairs and maintenance
- Maintenance
- Plastics injection and moulding
- Scaffolding installation
- Shipping/receiving

REF	SIZE	LENGTH
330	7/S	220mm
330	8/M	230mm
330	9/L	250mm
330	10/XL	270mm



SHOWA®  
**341 Grey**

Natural rubber palm coating over nylon/polyester liner

BENEFITS

- Extra grip
- Seamless knit
- Increased dexterity
- Breathable
- Flexible
- Form-fitting

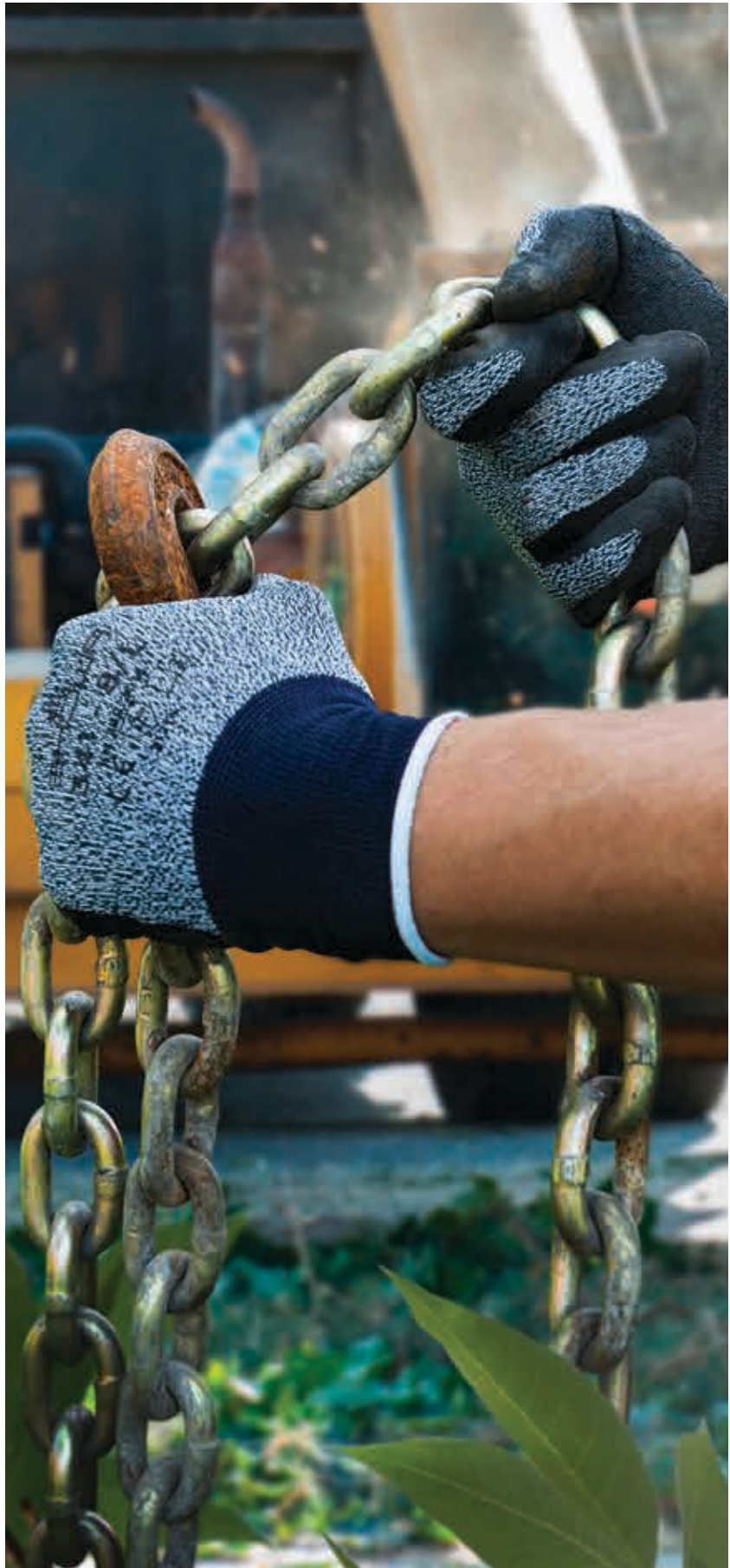
FEATURES

Liner: **Nylon/polyester**  
Coating: **Natural rubber**  
Grip: **Rough**

APPLICATIONS

- Decoration
- Drainage, piping
- Flashings and seals
- Guttering and drain pipe
- Install electrical wiring
- Insulation
- Roofing application membranes

REF	SIZE	LENGTH
341G	6/S	210mm
341G	7/M	230mm
341G	8/L	240mm
341G	9/XL	260mm





PVC



SHOWA®  
**600**  
PVC coating over cotton liner

BENEFITS

- Impermeable
- Flexible
- Soft liner
- Chemical-resistant
- Water-resistant
- Robust grip
- Form-fitting
- Seamless knit

FEATURES

Liner: **Cotton**  
Coating: **PVC**  
Grip: **Rough**

APPLICATIONS

- Chemical spray and treatment
- Handling plants and vegetables
- Washing and cleaning
- Planting and repotting
- Harvesting
- Public utility

REF	SIZE	LENGTH
600	7/S	230mm
600	8/M	240mm
600	9/L	250mm
600	10/XL	265mm



POLYURETHANE



SHOWA®  
**TEMRES®  
281**  
Fully breathable micro-ventilated  
polyurethane coating with micro-  
roughened nitrile finish on  
fingertips over nylon liner

BENEFITS

- Breathable
- Water-resistant
- Extra grip
- Flexible
- Seamless knit
- Form-fitting
- Skin-friendly
- Increased dexterity

FEATURES

Liner: **Nylon**  
Coating: **Polyurethane**  
Grip: **Rough**

APPLICATIONS

- Handling plants and vegetables
- Automotive repairs and maintenance
- Maintenance
- Intricate parts handling
- Tile setting

REF	SIZE	LENGTH
281	7/S	270mm
281	8/M	270mm
281	9/L	270mm
281	10/XL	280mm
281	11/XXL	290mm



CHEMICAL | CUT | **GENERAL PURPOSE** | INSULATED | SINGLE USE | ANTI-STATIC



POLYURETHANE



SHOWA®  
**B0500**  
**Black**

Polyurethane palm coating  
over nylon/polyester liner

**BENEFITS**

- Form-fitting
- Breathable
- Seamless knit
- Lightweight
- Increased sensitivity
- Natural rubber free
- Abrasion-resistant

**FEATURES**

Liner: **Nylon/polyester**  
Coating: **Polyurethane**  
Grip: **Foam**

**APPLICATIONS**

- Intricate parts handling
- Mechanical and engineering
- Component assembly
- Mounting and dismantling
- HVAC

REF	SIZE	LENGTH
B0500B	6/S	210mm
B0500B	7/M	220mm
B0500B	8/L	230mm
B0500B	9/XL	250mm
B0500B	10/XXL	265mm



SHOWA®  
**B0500**  
**White**

Polyurethane palm coating  
over nylon/polyester liner

**BENEFITS**

- Form-fitting
- Breathable
- Seamless knit
- Lightweight
- Increased sensitivity
- Natural rubber free

**FEATURES**

Liner: **Nylon/polyester**  
Coating: **Polyurethane**  
Grip: **Foam**

**APPLICATIONS**

- Intricate parts handling
- Mechanical and engineering
- Automotive repairs and maintenance
- Cleanrooms
- Integrated circuits
- Component assembly

REF	SIZE	LENGTH
B0500W	6/S	210mm
B0500W	7/M	220mm
B0500W	8/L	230mm
B0500W	9/XL	250mm
B0500W	10/XXL	265mm



SHOWA®  
**B0502**

Polyurethane palm coating over  
white nylon/polyester liner

**BENEFITS**

- Lightweight
- Increased sensitivity
- Breathable
- Oil-resistant
- Abrasion-resistant
- Seamless knit
- Natural rubber free
- Flexible

**FEATURES**

Liner: **Nylon/polyester**  
Coating: **Polyurethane**  
Grip: **Foam**

**APPLICATIONS**

- Mechanical and engineering
- Automotive repairs and maintenance
- Intricate parts handling
- Cleanrooms
- Integrated circuits
- Component assembly
- Mounting and dismantling

REF	SIZE	LENGTH
B0502	6/S	210mm
B0502	7/M	220mm
B0502	8/L	230mm
B0502	9/XL	250mm
B0502	10/XXL	265mm



POLYURETHANE



SHOWA®  
**B0600**

Polyurethane fingertips coating  
over nylon/polyester liner

**BENEFITS**

- Form-fitting
- Breathable
- Seamless knit
- Lightweight
- Increased sensitivity
- Natural rubber free

**FEATURES**

Liner: **Nylon/polyester**  
Coating: **Polyurethane**  
Grip: **Foam**

**APPLICATIONS**

- Mechanical and engineering
- Automotive repairs and maintenance
- Intricate parts handling
- Integrated circuits
- Semiconductors
- Cleanrooms

REF	SIZE	LENGTH
B0600	6/S	185mm
B0600	7/M	190mm
B0600	8/L	200mm
B0600	9/XL	225mm



SHOWA®  
**B0605**

Polyurethane fingertips coating  
over nylon/polyester liner with  
long cuff (+50mm)

**BENEFITS**

- Seamless knit
- Flexible
- Form-fitting

**FEATURES**

Liner: **Nylon/polyester**  
Coating: **Polyurethane**  
Grip: **Foam**

**APPLICATIONS**

- Mechanical and engineering
- Automotive repairs and maintenance
- Integrated circuits
- Intricate parts handling
- Microelectronic
- Semiconductors
- Cleanrooms
- Quality control

REF	SIZE	LENGTH
B0605	6/S	235mm
B0605	7/M	240mm
B0605	8/L	250mm
B0605	9/XL	275mm
B0605	10/XXL	295mm



SHOWA®  
**B0610**

Uncoated nylon/polyester liner

**BENEFITS**

- Seamless knit
- Flexible
- Form-fitting

**FEATURES**

Liner: **Nylon/polyester**  
Coating: **Uncoated**

**APPLICATIONS**

- Planting and repotting
- Handling plants and vegetables
- Wood cutting
- Public utility

REF	SIZE	LENGTH
B0610	6/S	170mm
B0610	7/M	180mm
B0610	8/L	190mm
B0610	9/XL	210mm





# HAND PROTECTION

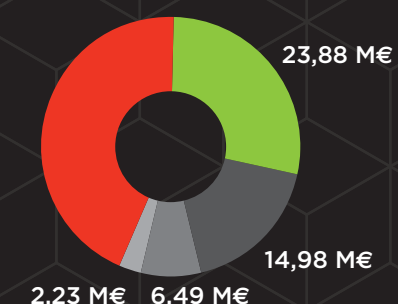
## IN THE CONSTRUCTION INDUSTRY

### FACTS AND FIGURES

Even though official figures show there has been a drop in workplace accidents in the building trade, they are still more frequent than in other industries. Most injuries within the construction environment involve the hands and/or arms, and serious accidents or fatalities have a deep social and economic impact on everyone involved: the company, the employer and the employee. It is vital to prevent these from happening in the first place.

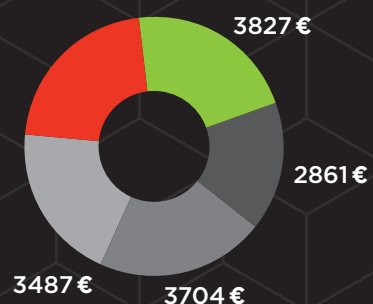
Every year, serious and fatal injuries to workers have a devastating social and emotional impact on victims, their families, their colleagues and the company's management. It makes sense for employees to protect themselves at all times, no matter how small the risk. As we all know, it's better to be safe than sorry. Data from France is used for the graphs below; the figures are in fact similar in all main industrialised countries.

37,45 M€



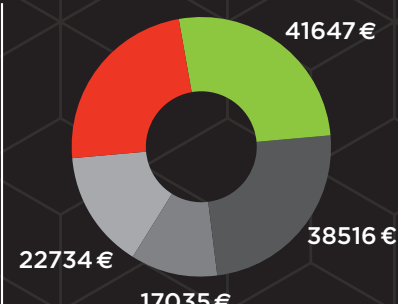
FINANCIAL COST OF WORKPLACE ACCIDENTS  
(source: Carsat, France)

3841€



AVERAGE COST OF LOST-TIME ACCIDENTS (INCLUDING WORK-RELATED ILL HEALTH)  
(source: Carsat, France)

37297€



AVERAGE COST OF OCCUPATIONAL ACCIDENTS CAUSING PERMANENT DISABILITY (INCLUDING WORK-RELATED ILL HEALTH)  
(source: Carsat, France)

ON TOP OF THESE FACTS AND FIGURES, LET'S NOT FORGET THERE MAY BE OTHER DIRECT AND INDIRECT COSTS THAT ARE OFTEN UNDERESTIMATED, OR EVEN UNKNOWN.

#### LABOUR COSTS

- Working time lost by the victim and other employees
- Medical visits after the accident and first aid
- Replacing the employee, including recruitment and training

#### COSTS OF MATERIAL LOSSES

- Damage caused to equipment, tools and work in progress
- The use of first aid medication supplies
- Administrative costs
- The time required for enquiries into the causes of the accident

#### PRODUCTION COSTS

- Time off work and loss of earnings
- Drops in productivity

#### COMMERCIAL COSTS

- Delays in delivery with possible late delivery fines
- Downturns in the quality of work
- Deterioration of the company's image
- Increases in insurance premiums

#### OTHER MISCELLANEOUS COSTS

- Fixed costs that are incurred even when there is a stoppage in work
- Transport for the victim
- Any possible legal action
- Punitive costs in the event of legal infringements
- Cost of expertise



BREAKDOWN OF OCCUPATIONAL ACCIDENTS LEADING TO PERMANENT DISABILITY ACCORDING TO THE AREA OF INJURY  
(France data)

### A COMPLETE OPTIMISED RANGE

With the multitude of different public sector and building jobs in mind, SHOWA® now offers a range of gloves created entirely around the different applications and needs around each trade of the construction industry. To make it easier to choose the correct glove for the type of application, we have identified a range of trade-specific gloves grouped into 5 main categories of no more than 15 models. This ensures the number of reference materials is optimised and purchase costs are reduced to a minimum, with gloves that meet the specific needs of each different type of work. Grouped by work type, they consider three key factors: work environment, the different hand movements to be performed and the types of protection required.





## PUBLIC WORK

## FOUNDATIONS /STRUCTURE

## SCAFFOLDER

## MASON

## ROOFER and CARPENTER

## GLASS AND GLAZING

## PLUMBER - HEATER

## ELECTRICIAN

## TILER

## PAINTER AND DECORATOR /PLASTERER

GENERAL HANDLING						CHEMICAL		CUT PROTECTION			INSULATION	SPECIFIC		
381	306	330	341	377	317	660	CS720	DURACoil® 546	S-TEX® 376	S-TEX® 581	477	6112PF	281	377IP
Driving machines	•	•									•	•		
Maintenance	•			•							•	•		•
Slings/signaler					•						•			•
Demolition		•			•						•			•
Steel fixing								•	•	•				
Concreting				•		•	•				•			•
Steel erector								•	•	•				
Shuttering	•	•									•			•
Pouring concrete				•		•	•				•			•
Mechanical and engineering	•		•					•	•	•				
Scaffolding installation			•											•
Laying brick		•	•		•									
Cementing				•		•	•				•			
Mortar				•		•	•				•			•
Guttering and drain pipe		•		•							•			•
Roofing application membranes		•		•							•			
Insulation	•	•		•							•			
Flashings and seals		•		•							•			
Internal fixing		•		•				•		•	•			
Wood joinery		•		•							•			
Fixing glass and windows								•	•	•				
Handling glass and windows								•	•	•				
Plumbing	•			•							•	•	•	•
Drainage, piping				•							•	•	•	•
Heating, ventilation	•							•		•	•			
Installing electrical wiring/components				•				•		•				
Using test equipment				•				•		•				
Installing trunking				•				•		•				
Setting tile											•			
Grouting/cleaning off											•			
Painting					•		•				•	•	•	
Washing/cleaning											•	•	•	
Sanding				•							•	•	•	
Setting screw and nail	•			•				•		•				
Skirting placement	•			•				•		•				
Coating preparation	•										•	•	•	
Plastering				•										
Decoration				•								•	•	





# INSULATED

When working in extreme environments, find the right protection for you whether it is cold protection against blisters, slipping and undercooling. Or preventing burns to the hand and irreparable scar tissue with our heat resistant gloves.

## COLD PROTECTION

The human body is in a comfortable situation when the heart is beating at a regular speed. This happens at a mean blood temperature of 37°C. Using the right cold protection equipment is not a luxury. It will protect the wearer against cold blisters, slipping and under-cooling, while providing a satisfying level of comfort and protection.

- 76. NATURAL RUBBER
- 76. PVC
- 80. NITRILE

## HEAT PROTECTION

Burns to the hand and forearm can result into irreparable scar tissue. Prevent pain and scars by protecting yourself with heat resistant gloves. Insulated gloves protect up to 260°C. SHOWA® also offers protection to Arc Flash with SHOWA® 240.

- 80. POLYURETHANE
- 81. NEOPRENE

## TEMRES®

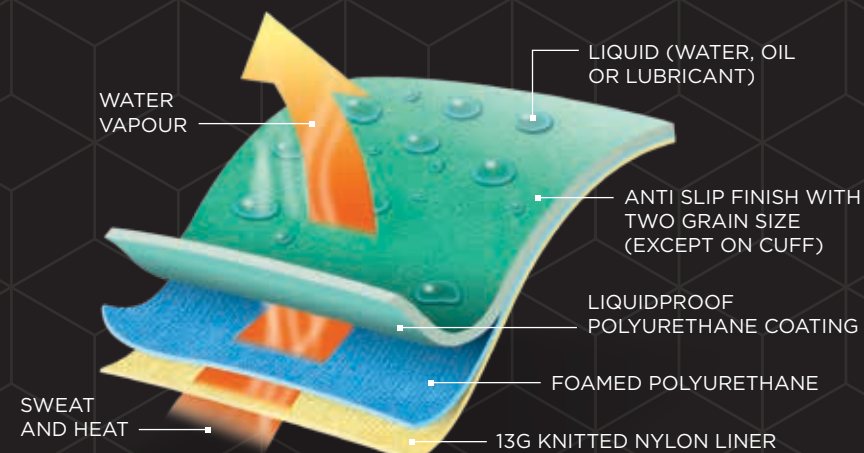
**TEMRES® TECHNOLOGY ENABLES OUR GLOVES TO BE BREATHABLE AND WATERPROOF, A COMBINATION OF THE APPARENTLY OPPOSING BUT IMPORTANT FEATURES OFFERED IN A SINGLE GLOVE.**

The idea behind TEMRES® came from a challenge faced by Japanese workers who wanted to keep their hands free from sweat while working in wet environments. For many workers in the Japanese fishing industry for example, it was difficult to keep dry hands while at the same time working in wet and oily conditions. However, it is even more difficult to achieve good breathability in fully coated gloves while maintaining oil or water resistance.

As a glove manufacturer specialist SHOWA® took on this challenge, and developed the first TEMRES® 280 glove 19 years ago. The name TEMRES® comes from a combination of the Japanese words **Te**, which means "hand", and **Murezu** meaning "no humidity". TEMRES® glove was revolutionary at the time of its launch and its uniqueness and benefits have gradually become recognised in the market. Over the years we have perfected the technology and in 2005 the new TEMRES® 281 was launched. It features added anti-slip grip and a design for easier donning and doffing.



Use your smartphone camera to activate



## HOW DOES IT WORK?

The concept in TEMRES® technology comes from differences in physical properties of liquid water and water vapour. Physical properties of water in liquid state, such as cohesion and lower molecular energy, means that water droplets typically range in size between 100 µm to 3,000 µm. On the other hand, the higher energy of water molecules in vapour means they are excited and moving freely. The size of water molecule is about 0.0003 µm. Our engineers used this significant size difference to create two main membranes in the glove that enable the TEMRES® effect: one for its breathability and one for water resistance.

Concretely, one membrane is made from porous foamed polyurethane, helping moisture come out easily and allowing the hand to dry promptly. The other one is the outermost layer made from hydrophilic polymer, which is permeable to moisture but not to water. The difference in concentration of water molecules and temperature leads to water vapour transfer from inside the glove to outside. This is the essential mechanism applied to TEMRES® gloves. The breathability allows hands to stay dry. At the same time its waterproof property still protects the hands from water and liquids.

## TEMRES® FAMILY

We are planning on expanding the TEMRES® series and applying and bringing the benefits of this technology to other applications, keeping our users hands dry.



P.66



P.78





COLD PROTECTION

NATURAL RUBBER



SHOWA®  
**451**

Natural rubber palm coating over acrylic/cotton/polyester liner

BENEFITS

- Thermal insulation
- Flexible
- Breathable
- Extra grip
- Seamless knit
- Abrasion-resistant

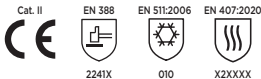
FEATURES

Liner: **Acrylic/cotton/polyester**  
Coating: **Natural rubber**  
Grip: **Rough**

APPLICATIONS

- Signalers
- Brick laying
- Carpentry
- Driving machines
- Masonry
- Demolition
- Shipping/Receiving

REF	SIZE	LENGTH
451	7/S	220mm
451	8/M	240mm
451	9/L	260mm
451	10/XL	270mm



SHOWA®  
**406**

Full foam natural rubber coating doubled with natural rubber on palm coating over nylon outer liner with insulated acrylic/nylon inner liner

BENEFITS

- Water-resistant
- Increased visibility
- Protects up to -30°C
- Breathable
- Abrasion-resistant
- Thermal insulation

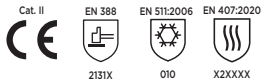
FEATURES

Liner: **Acrylic/nylon**  
Coating: **Natural rubber**  
Grip: **Rough**

APPLICATIONS

- Brick laying
- Plumbing
- Washing and cleaning
- Pool/pond maintenance
- Shipping/Receiving

REF	SIZE	LENGTH
406	7/M	250mm
406	8/L	270mm
406	9/XL	290mm
406	10/XXL	290mm



PVC



SHOWA®  
**460**

Full PVC coating, over cotton/ fixed acrylic liner

BENEFITS

- Protects up to -20°C
- Oil-resistant
- Chemical-resistant
- Increased dexterity
- Extra grip
- Water-resistant
- Flexible
- Impermeable

FEATURES

Liner: **Acrylic**  
Coating: **PVC**  
Grip: **Rough**

APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Painting and spray workshops

REF	SIZE	LENGTH
460	8/M	300mm
460	9/L	300mm
460	10/XL	300mm



COLD PROTECTION



SHOWA®  
**495**

Full PVC coating, removable acrylic liner

BENEFITS

- Seamless knit
- Chemical-resistant
- Flexible
- Protects up to -20°C
- Thermal insulation
- Oil-resistant

FEATURES

Liner: **Acrylic**  
Coating: **PVC**  
Grip: **Rough**

APPLICATIONS

- Chemical spray and treatment
- Washing and cleaning
- Transporting
- Light chemical handling in horticulture, agriculture

REF	SIZE	LENGTH
495	8/M	300mm
495	9/L	300mm
495	10/XL	300mm





COLD PROTECTION

NITRILE

POLYURETHANE



SHOWA®  
**477**

Full nitrile coating combined with nitrile foam on palm on polyester/nylon/insulated acrylic liner

**BENEFITS**

- Seamless knit
- Cold Resistant
- Water-resistant
- Flexible
- Abrasion-resistant
- Extra grip
- Thermal insulation
- Form-fitting
- Impermeable

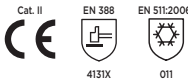
**FEATURES**

Liner: **Polyester/nylon/acrylic**  
Coating: **Nitrile**  
Grip: **Foam**

**APPLICATIONS**

- Concreting
- Guttering and drain pipe
- Insulation
- Washing and cleaning
- Planting and repotting
- Bottling
- Water/sewage treatment
- Plumbing
- Drainage, piping
- Shipping/receiving

REF	SIZE	LENGTH
477	7/M	275mm
477	8/L	275mm
477	9/XL	280mm
477	10/XXL	290mm



SHOWA®  
**TEMRES®  
282**

Fully breathable micro-ventilated polyurethane coating with micro roughened nitrile finish on fingertips over nylon/insulated acrylic liner

**BENEFITS**

- Breathable
- Thermal insulation
- Water-resistant
- Seamless knit
- Flexible
- Extra grip
- Skin-friendly

**FEATURES**

Liner: **Acrylic/polyurethane**  
Coating: **Polyurethane**  
Grip: **Rough**

**APPLICATIONS**

- Handling plants and vegetables
- Signalers
- Refrigeration
- Pool/pond maintenance
- Washing and cleaning
- Plumbing

REF	SIZE	LENGTH
282	8/M	270mm
282	9/L	275mm
282	10/XL	280mm
282	11/XXL	300mm



**COLD PROTECTION**



**BREATHABLE**

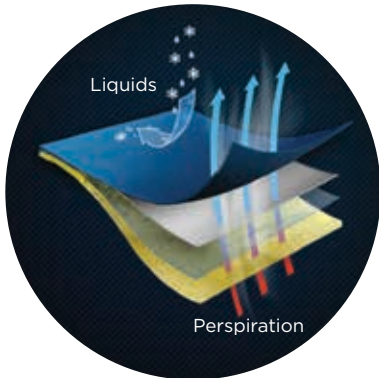


**WATERPROOF**



**STRONG GRIP**

PU coating on glove with micro roughened nitrile coating finish ensures strong grip.



HEAT PROTECTION

NEOPRENE



SHOWA®  
**6781R**

Rugged neoprene coating over cotton jersey liner

**BENEFITS**

- Burn protection
- Extra grip
- Abrasion-resistant
- Soft liner
- Chemical-resistant
- Cut-resistant
- Heat-resistant

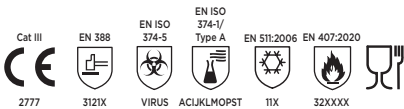
**FEATURES**

Liner: **Cotton jersey**  
Coating: **Neoprene**  
Grip: **Rough**  
+ Insulated

**APPLICATIONS**

- Chemical spray and treatment
- Coating preparation
- Laboratory, pharma and analysis
- Painting and spray workshops
- Handling light chemicals in agriculture, horticulture

REF	SIZE	LENGTH
6781R	10/L	305mm



SHOWA®  
**8814**

Full neoprene spray coating over non-woven liner

**BENEFITS**

- Impermeable
- Machine washable
- Increased dexterity
- Easy donning and doffing
- Heat-resistant

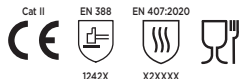
**FEATURES**

Liner: **Non-woven**  
Coating: **Neoprene sprayed**  
Grip: **Rough**

**APPLICATIONS**

- Automotive repairs and maintenance
- Mechanical and engineering
- Metal stamping
- Bakeries and delicatessens
- Casting

REF	SIZE	LENGTH
8814	7/S	355mm
8814	8/M	355mm
8814	9/L	355mm
8814	10/XL	355mm





# SINGLE USE

SHOWA® is the first to manufacture biodegradable single use nitrile and accelerator-free nitrile hand protection. We offer a variety of different styles, thicknesses, and lengths, suitable for environments such as industrial automotive, chemical, as well as the option of accelerator-free.

## SHOWA® SINGLE USE NITRILE RANGE

Combining years of expertise and market insight, SHOWA® introduces the most comprehensive biodegradable nitrile solution. The range offers a broad choice of single use gloves, composed of 9 different styles from XS to XXL sizes, suitable for laboratory, pharmaceutical, food industry, automotive and harmful chemical usage and in compliance with all CE standards.



THE SINGLE USE RANGE IS DESIGNED TO FEATURE ALL THE FOLLOWING PHYSICAL PROPERTIES AND BENEFITS:



### KEY FEATURES AND PHYSICAL PROPERTIES

- Nitrile without plasticizers and powder-free
- Avoids natural rubber allergies risks type I
- SHOWA® quality AQL 1.5 to AQL 1.0
- Force at break acc. to EN 455-2 (min. 6 N)
- Elongation > 500%
- Biodegradable raw material



### COMFORT AND PERFORMANCES

- High chemical performance against permeation and degradation
- Chlorinated glove offers easy donning, increased chemical resistance and improved physical properties
- Second skin feel, softer texture
- Low-modulus formulation to improve fit and reduce hand fatigue
- Textured finish on fingertips to enhance grip

As the original inventor of N-DEX, the world's first single use nitrile glove in 1991, SHOWA® has continued over the last two decades to bring further innovation to single use nitrile. We analysed trends and growth drivers to become more competitive by offering the broadest lines of superior quality single use gloves and comprehensive solutions, complying with market requirements:

- Powder-free and free from natural rubber
- Easy donning and doffing
- Chemical resistant
- Multiple choice colours and thicknesses
- High tensile strength
- Safe for workers' skin
- Comfort in use and high sensitivity
- Ergonomic fit
- Durable and cost-effective glove
- Accelerator-free

To us, sustainability isn't just a commitment, it's part of our legacy. We launched the first biodegradable single-use glove in 2012 as the first step in our sustainability journey: a way to reduce the impact that gloves have on the environment. This strategy remains our primary focus as we expand EBT into every colour and millimetre thickness within our product offering, including reusable gloves. This way we can meet the demands of today, without compromising for tomorrow.

Today you can choose from a wide range of biodegradable EBT gloves, each covering a range of applications.



## SHOWA® SINGLE USE NITRILE RANGE SUMMARY



7500PF 7502PF 6110PF 6112PF 7545 7555 7565 8005PF 7585PF

THICKNESS (mm)	0,10	0,06	0,10	0,10	0,10	0,12	0,15	0,20	0,20
LENGTH (mm)	240	240	240	240	295	295	295	240	290
SIZES	XS-XXL	XS-XXL	XS-XXL	XS-XXL	S-XXL	XS-XXL	S-XXL	S-XL	S-XXL
CE CATEGORY	III	III	III	III	III	III	III	III	III
EN ISO 374-5	•	•	•	•	•	•	•	•	•
EN ISO 374-1	JKPT	KT	KPT	KPT	JKOPT	JKPT	JKPT	JKOPT	JKLOPT
FOOD APPROVED (EC No. 1935/2004)	•	•	•	•	•	•	•	•	•
SILICONE FREE	•	•	•	•	•	•	•	•	•
ACCELERATOR FREE		•							
ULTIMATE TENSILE STRENGTH (MPa)	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14
ELONGATION AT BREAK (%) MIN.	500	500	500	500	500	500	500	500	500
FORCE AT BREAK (N)	≥ 6	≥ 6	≥ 6	≥ 6	≥ 6	≥ 6	≥ 6	≥ 6	≥ 6
GLOVES PER DISPENSER	100	200	100	100	100	100	100	50	50
GLOVES PER DISPENSER XXL	90	180	90	90	90	90	90		50
DISPENSERS PER CARTON	10	10	10	10	10	10	10	20	10
AQL	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



BIODEGRADABLE EBT



SHOWA®  
7500PF

Single-use nitrile glove with EBT technology, powder-free, 240mm long, 0,10mm thick

BENEFITS

- Disposable
- Biodegradable
- Flexible
- Free from natural rubber
- Increased dexterity

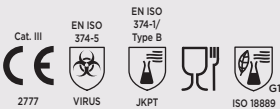
FEATURES

Liner: **Unlined**  
Coating: **Nitrile**  
Thickness: **0,10mm**  
Grip: **Textured finish**  
+ Eco Best Technology (EBT),  
rolled cuff

APPLICATIONS

- Intricate parts handling
- Biotechnology
- Pet food production
- Washing and cleaning
- Laboratory, pharma and analysis

REF	SIZE	LENGTH
7500PF	5-6/XS	240mm
7500PF	6-7/S	240mm
7500PF	7-8/M	240mm
7500PF	8-9/L	240mm
7500PF	9-10/XL	240mm
7500PF	10-11/XXL	240mm



SHOWA®  
7502PF

Biodegradable nitrile with EBT technology, natural rubber and accelerator-free, 240mm long, 0,06mm thick

BENEFITS

- Disposable
- Biodegradable
- Chemical-resistant
- Free from natural rubber
- **Accelerator-free**

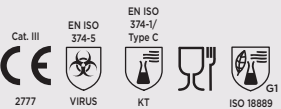
FEATURES

Liner: **Unlined**  
Coating: **Nitrile**  
Thickness: **0,06mm**  
Grip: **Textured finish**  
+ Eco Best Technology (EBT),  
rolled cuff

APPLICATIONS

- Handling plants and vegetables
- Light chemical handling in horticulture, agriculture
- Food packing and handling
- Food service/food prep
- Washing and cleaning

REF	SIZE	LENGTH
7502PF	5-6/XS	240mm
7502PF	6-7/S	240mm
7502PF	7-8/M	240mm
7502PF	8-9/L	240mm
7502PF	9-10/XL	240mm
7502PF	10-11/XXL	240mm



Featuring SHOWA's revolutionary Eco Best Technology (EBT), these gloves are engineered for accelerated biodegradation in biologically active landfills.

The SHOWA® 7500PF is a slightly thicker glove being 0.10mm thick compared to the SHOWA® 7502PF which is 0.06mm thick ideal for the food industry.



BIODEGRADABLE EBT



SHOWA®  
6110PF

Biodegradable single-use glove, nitrile with EBT technology, powder-free, 240mm long, 0.10mm thick

BENEFITS

- Biodegradable
- Form-fitting
- Disposable
- Smooth Grip
- Free from natural rubber
- Water-resistant

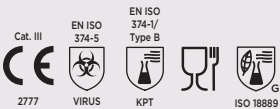
FEATURES

Liner: **Unlined**  
Coating: **Nitrile**  
Thickness: **0,10mm**  
Grip: **Textured fingertips**  
+ Eco Best Technology (EBT),  
rolled cuff

APPLICATIONS

- Handling plants and vegetables
- Automotive repairs and maintenance
- Intricate parts handling
- Light assembly of oil-coated pieces
- Food packing and handling
- Food service/food prep
- Fruit and vegetable processing
- Poultry, meat and seafood processing
- Washing and cleaning
- Laboratory, pharma and analysis
- Public utility
- Cytostatics
- Pharmaceuticals and API

REF	SIZE	LENGTH
6110PF	5-6/XS	240mm
6110PF	6-7/S	240mm
6110PF	7-8/M	240mm
6110PF	8-9/L	240mm
6110PF	9-10/XL	240mm
6110PF	10-11/XXL	240mm



SHOWA®  
6112PF

Single-use, biodegradable nitrile glove with EBT technology prioritising sensitivity and dexterity, 240mm long, 0,10mm thick

BENEFITS

- Biodegradable
- Form-fitting
- Disposable
- Smooth Grip
- Free from natural rubber
- Water-resistant

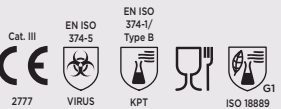
FEATURES

Liner: **Unlined**  
Coating: **Nitrile**  
Thickness: **0,10mm**  
Grip: **Textured fingertips**  
+ Eco Best Technology (EBT),  
rolled cuff

APPLICATIONS

- Intricate parts handling
- Light assembly of oil-coated pieces
- Mechanical and engineering
- Coating preparation
- Plumbing
- Sanding
- Food packing and handling
- Food service/food prep
- Grain, mill and starch products
- Pet food production
- Poultry, meat and seafood processing
- Washing and cleaning
- Public utility
- Pharmaceuticals and API

REF	SIZE	LENGTH
6112PF	5-6/XS	240mm
6112PF	6-7/S	240mm
6112PF	7-8/M	240mm
6112PF	8-9/L	240mm
6112PF	9-10/XL	240mm
6112PF	10-11/XXL	240mm



BIODEGRADABLE EBT



EBT



SHOWA®  
7545

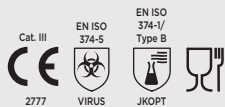
Single-use ambidextrous glove made of 100% nitrile, powder-free, 295 mm long, 0.10 mm thick

- BENEFITS**
- Biodegradable
  - High resistance to elongation and tearing
  - Excellent form-fitting
  - Forearm protection from chemical splashes
  - Ideal for applications in pharmaceutical industry as well as in laboratory, cleaning

**FEATURES**  
Liner: **Unlined**  
Coating: **Nitrile w/EBT**  
Thickness: **0,10mm**  
Grip: **Textured fingertips**

- APPLICATIONS**
- Laboratory
  - Food industry/HORECA
  - Chemical/Pharma industry
  - Police and defence
  - Aerospace
  - Printing industry
  - Mechanical engineering
  - Automotive repairs
  - Maintenance
  - Agriculture

REF	SIZE	LENGTH
7545	6-7/S	295mm
7545	7-8/M	295mm
7545	8-9/L	295mm
7545	9-10/XL	295mm
7545	10-11/XXL	295mm



EBT



SHOWA®  
7555

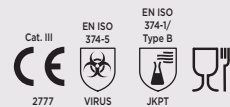
Single-use ambidextrous glove made of 100% nitrile, powder-free, 295 mm long, 0.12 mm thick

- BENEFITS**
- Biodegradable
  - High resistance to elongation and tearing
  - Excellent form-fitting
  - Forearm protection from chemical splashes
  - Ideal for applications in pharmaceutical industry as well as in laboratory, cleaning

**FEATURES**  
Liner: **Unlined**  
Coating: **Nitrile w/EBT**  
Thickness: **0,12mm**  
Grip: **Textured fingertips**

- APPLICATIONS**
- Laboratory
  - Food industry/HORECA
  - Chemical/Pharma industry
  - Police and defence
  - Aerospace
  - Printing industry
  - Mechanical engineering
  - Automotive repairs
  - Maintenance
  - Agriculture

REF	SIZE	LENGTH
7555	5-6/XS	295mm
7555	6-7/S	295mm
7555	7-8/M	295mm
7555	8-9/L	295mm
7555	9-10/XL	295mm
7555	10-11/XXL	295mm



BIODEGRADABLE EBT



EBT



SHOWA®  
7565

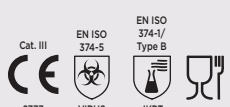
Single-use ambidextrous glove made of 100% nitrile, powder-free, 295 mm long, 0.15 mm thick

- BENEFITS**
- Biodegradable
  - High resistance to elongation and tearing
  - Excellent form-fitting
  - Black colour is ideal for work with products leaving colour traces on glove
  - Forearm protection from chemical splashes
  - Ideal for applications in pharmaceutical industry as well as in laboratory, mechanical reparations and maintenance, cleaning

**FEATURES**  
Liner: **Unlined**  
Coating: **Nitrile w/EBT**  
Thickness: **0,15mm**  
Grip: **Textured fingertips**

- APPLICATIONS**
- Laboratory
  - Food industry/HORECA
  - Chemical/Pharma industry
  - Police and defence
  - Aerospace
  - Printing industry
  - Mechanical engineering
  - Automotive repairs
  - Maintenance
  - Agriculture

REF	SIZE	LENGTH
7565	6-7/S	295mm
7565	7-8/M	295mm
7565	8-9/L	295mm
7565	9-10/XL	295mm
7565	10-11/XXL	295mm



EBT



SHOWA®  
8005PF

Powder-Free, lightweight design, ambidextrous and uses second-skin feel with EBT

- BENEFITS**
- Easy donning and doffing
  - Free from natural rubber
  - Increased dexterity
  - Single-use
  - Biodegradable
  - High chemical resistance

**FEATURES**  
Liner: **Unlined**  
Coating: **Nitrile**  
Thickness: **0,20mm**  
Grip: **Smooth**  
**+ Eco Best Technology (EBT), rolled cuff**

- APPLICATIONS**
- Handling plants and vegetables
  - Intricate parts handling
  - Light assembly of oil-coated pieces
  - Mechanical and engineering
  - Chemical spray and treatment
  - Coating preparation
  - Painting and spray workshops
  - Food packing and handling
  - Food service/food prep
  - Fruit and vegetable processing
  - Pet food production
  - Poultry, meat and seafood processing
  - Washing and cleaning
  - Public utility
  - Life sciences
  - Cytostatics
  - Biotechnology
  - Pharmaceuticals and API

REF	SIZE	LENGTH
8005PF	6-7/S	240mm
8005PF	7-8/M	240mm
8005PF	8-9/L	240mm
8005PF	9-10/XL	240mm



SHOWA®  
7585PF

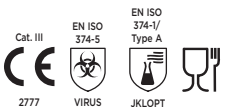
Powder-Free, lightweight design, ambidextrous and uses second-skin feel

- BENEFITS**
- Easy donning and doffing
  - Free from natural rubber
  - Increased dexterity
  - Single-use
  - High chemical resistance

**FEATURES**  
Liner: **Unlined**  
Coating: **Nitrile**  
Thickness: **0,20mm**  
Grip: **Textured fingertips**  
**+ Rolled cuff**

- APPLICATIONS**
- Handling plants and vegetables
  - Intricate parts handling
  - Light assembly of oil-coated pieces
  - Mechanical and engineering
  - Chemical spray and treatment
  - Coating preparation
  - Painting and spray workshops
  - Food packing and handling
  - Food service/food prep
  - Fruit and vegetable processing
  - Pet food production
  - Poultry, meat and seafood processing
  - Washing and cleaning
  - Public utility
  - Life sciences
  - Cytostatics
  - Biotechnology
  - Pharmaceuticals and API

REF	SIZE	LENGTH
7585PF	6-7/S	290mm
7585PF	7-8/M	290mm
7585PF	8-9/L	290mm
7585PF	9-10/XL	290mm
7585PF	10-11/XXL	290mm







# ANTI-STATIC

We all experience electrostatic discharge from time to time. Some of the most common are while doing everyday tasks. For example, feeling a shock after walking across a carpet and then touching a metal object or sliding across a car seat and touching the door handle.

## WHAT IS ESD?

Electrostatic discharge (ESD) is a sudden and momentary flow of electric current between two electrically charged objects caused by contact, an electrical short or dielectric breakdown.

Our anti-static gloves comply with the European standard EN 16350 providing requirements for protective gloves that are worn in areas where flammable or explosive areas exist or might be present (ATEX zones).

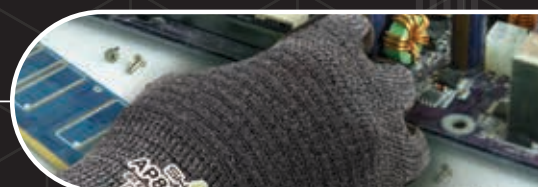
These new gloves AX200, AC200, AC800, and AP800 are electrostatic dissipative (ESD) protective gloves providing protection in flammable atmosphere and against explosion risk as complying with EN 16350.

## HOW TO PREVENT ESD?

Change the direction of the electrostatic charge migration (flow of electrons) by directing into the ground.

- Ground yourself by wearing an ESD wrist strap.
- Wear ESD footwear, clothes, and gloves.
- Utilise an anti-static mat.

AP800



AX200



AC200



AC800







ANTI - STATIC



NEW

SHOWA®  
**AX200**

18-Gauge Nylon liner with high tactility; ESD and touchscreen compatible, silicone- and fingerprint-free

**BENEFITS**

- Breathable
- Anti-static liner
- Lightweight
- Touchscreen compatibility
- Perfect form-fitting thanks to thin 18G shell
- Free of natural rubber
- Fingerprint-free
- Silicone-free

**FEATURES**

Liner: **Nylon/polyester**  
Coating: **Uncoated**

**APPLICATIONS**

- Integrated circuits
- Semiconductors
- Microelectronics
- Electrical part and components handling
- Automotive industry and services
- Mechanical and engineering
- Intricate parts handling
- Packaging

REF	SIZE	LENGTH
AX200	6/S	180mm
AX200	7/M	185mm
AX200	8/L	200mm
AX200	9/XL	215mm



NEW

SHOWA®  
**AC200**

18-Gauge seamless knit, cut resistant HPPE liner with conductive yarn. Free of natural rubber, ESD and touchscreen compatible, silicone- and fingerprint-free

**BENEFITS**

- EN 388 / ISO 13997: cut level D
- Breathable
- Anti-static liner
- Lightweight
- Touchscreen compatibility
- Perfect form-fitting thanks to thin 18G shell
- Free of natural rubber
- Fingerprint-free
- Silicone-free

**FEATURES**

Liner: **HPPE**  
Coating: **Uncoated**

**APPLICATIONS**

- Automotive industry and services
- Electrical part and components handling
- Mechanical and engineering
- Intricate parts handling
- Handling glass and windows
- Light assembly in dry conditions
- Microelectronics
- Semiconductors
- Integrated circuits

REF	SIZE	LENGTH
AC200	6/S	220mm
AC200	7/M	225mm
AC200	8/L	230mm
AC200	9/XL	240mm



NEW

SHOWA®  
**AC800**

Microporous nitrile palm coating with S-shape finish on 18G HPPE liner; ESD and touchscreen compatible, silicone- and fingerprint-free

**BENEFITS**

- EN 388 / ISO 13997: cut level D
- Breathable
- Anti-static liner
- Lightweight
- Abrasion-resistant
- Perfect form-fitting thanks to thin 18G shell
- Free of natural rubber
- Touchscreen compatibility
- Fingerprint-free
- Silicone-free

**FEATURES**

Liner: **HPPE**  
Coating: **Nitrile**  
Grip: **Embossed foam**

**APPLICATIONS**

- Automotive industry and services
- Intricate parts handling
- Assembly of oil-coated pieces
- Mechanical and engineering
- Handling glass and windows
- Cleaning chemical tank
- Maintenance and repair in ATEX zones

REF	SIZE	LENGTH
AC800	6/S	220mm
AC800	7/M	230mm
AC800	8/L	250mm
AC800	9/XL	260mm
AC800	10/XXL	270mm



ANTI - STATIC



NEW

SHOWA®  
**AP800**

Microporous nitrile palm coating with embossed finish on polyester microfibre liner; ESD and touchscreen compatible, silicone- and fingerprint-free

**BENEFITS**

- Anti-static liner
- High breathability thanks to microfibre
- Touchscreen compatibility
- Lightweight
- Increased dexterity
- Perfect form-fitting thanks to microfibre
- Free of natural rubber
- Fingerprint-free
- Silicone-free

**FEATURES**

Liner: **Nylon/polyester**  
Coating: **Nitrile**  
Grip: **Embossed foam**

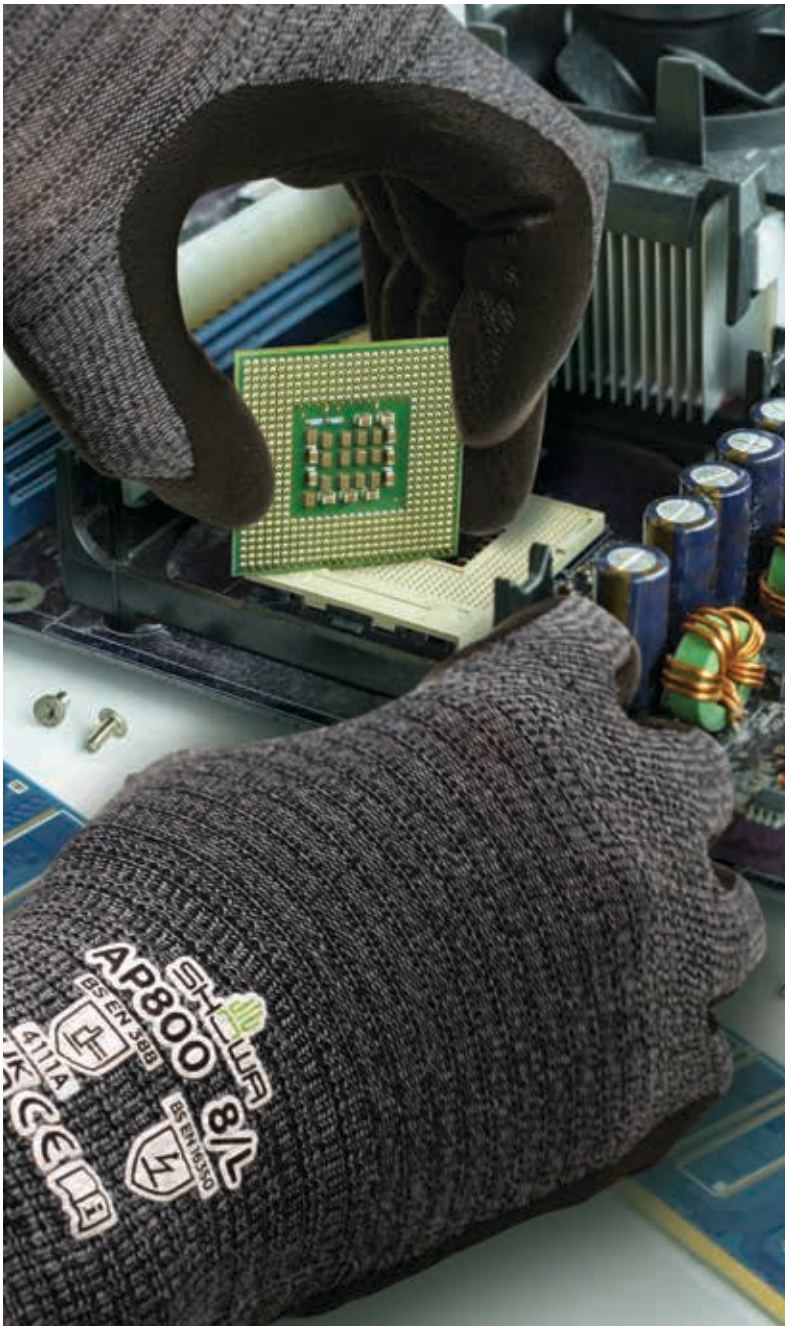
**APPLICATIONS**

- Installation of electrical wiring
- Light assembly of oil-coated pieces
- Mechanical and engineering
- Assembly of electric parts
- Intricate parts handling
- Automotive industry and services
- Packaging and logistics
- Operations in ATEX zones without cut risk

REF	SIZE	LENGTH
AP800	6/S	220mm
AP800	7/M	230mm
AP800	8/L	250mm
AP800	9/XL	260mm
AP800	10/XXL	270mm



Oeko-Tex® is a trademark of OTI-abbr for Institut für Ökologie, Technik und Innovation.





ANTI-STATIC



SHOWA®  
**A0170**

Polyurethane palm coating over anti-static nylon/polyester liner

**BENEFITS**

- Anti-static
- Seamless knit
- Flexible
- Form-fitting
- Abrasion-resistant

**FEATURES**

Liner: **Nylon/polyester**  
Coating: **Polyurethane**

Complies with EN 1149-1/-5

**APPLICATIONS**

- Intricate parts handling
- Mechanical and engineering
- Semiconductors
- Cleanrooms
- Integrated circuits
- Microelectronic

REF	SIZE	LENGTH
A0170	6/S	210mm
A0170	7/M	220mm
A0170	8/L	230mm
A0170	9/XL	250mm



SHOWA®  
**A0160**

Polyurethane fingertips coating over anti-static nylon/polyester liner

**BENEFITS**

- Anti-static
- Seamless knit
- Flexible
- Form-fitting

**FEATURES**

Liner: **Nylon/polyester**  
Coating: **Polyurethane**

Complies with EN 1149-1/-5

**APPLICATIONS**

- Intricate parts handling
- Mechanical and engineering
- Semiconductors
- Cleanrooms
- Integrated circuits
- Microelectronic

REF	SIZE	LENGTH
A0160	6/S	185mm
A0160	7/M	190mm
A0160	8/L	200mm
A0160	9/XL	220mm



SHOWA®  
**660ESD**

Anti-static PVC coating over cotton liner

**BENEFITS**

- Oil-resistant
- Extra grip
- Abrasion-resistant
- Form-fitting
- Soft liner
- Anti-static
- Chemical-resistant
- Usable in ATEX zones as ESD

**FEATURES**

Liner: **Cotton**  
Coating: **PVC**  
Grip: **Rough**

**APPLICATIONS**

- Chemical spray and treatment
- Install electrical wiring
- Handling in ATEX zones
- Aircraft and truck fueling
- Loading flammable liquids in trucks, etc.
- Industrial cleaning in ATEX zones

REF	SIZE	LENGTH
660ESD	9/L	300mm
660ESD	10/XL	320mm



EUROPEAN  
STANDARDS FOR PPE

The European Directive 89/686/EEC on PPE has been superseded by the new PPE Regulation (EU) 2016/425. This Regulation, that introduces revisions in several PPE standards such as EN 388 and EN 374, was published in the Official Journal of the European Union on 31st March 2016 and is being applied as of 21st April 2018. The existing certificates according to the Directive will remain valid until 21st April 2023. For more information on the revision of the Directive and its implications, please visit the SHOWA® group website.

SHOWA® has recertified all products according to the new regulations, and these changes can be seen on the technical documentation available from the website.

Please note that products manufactured after the recertification will have the updated norms on the glove stamp. Gloves manufactured before the recertification will have the old norms. This is not a reflection on the quality of the gloves and they can still be used.

CE CATEGORY

European Regulation (EU) 2016/425



EN ISO  
21420:2020

Protective gloves - general requirements

EN ISO  
374-1: 2016  
+A1:2018

- CATEGORY I** Minor risks.
- CATEGORY II** Reversible risks (injury), certified compliant by a notified body.
- CATEGORY III** Irreversible risks (corrosion), certified compliant and tested by a notified body whose number is specified.

- General requirements and relevant test procedures for glove design and construction
- Innocuousness
- Comfort and efficiency
- Marking
- Information supplied by the manufacturer

The standard defines requirement for the capability of gloves to protect the user against penetration, permeation and degradation by chemicals and microorganisms. It classifies three types of gloves by level of protection (A, B, and C).

EN 16523-1:2015  
+A1:2018

(replaces EN 374-3)

Resistance to chemical permeation



See more at  
ChemRest.com

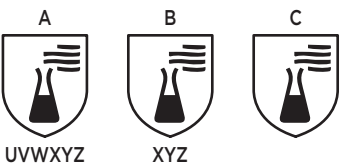
Test method to measure the resistance of the PPE material to permeation by hazardous chemicals at molecular level and under continuous contact. The resulting value is the breakthrough time or the time needed by the hazardous liquid or gas to get in contact with the skin. The glove is classified in terms of breakthrough time performance level 1 to 6.

The standard defines a list of 18 chemicals. The minimum breakthrough time for a Type A glove is 30 mins (Level 2) for 6 chemicals, for a Type B it is 30 mins for at least 3 chemicals, and for Type C it is 10 mins (Level 1) for at least 1 chemical on the list.

The ‘chemical resistant’ glove pictogram must be accompanied by code letters for the tested chemicals for Type A and Type B gloves. Type C marked gloves are without any code letter.

Measured breakthrough time	Permeation performance index
> 10	1
> 30	2
> 60	3
> 120	4
> 240	5
> 480	6

Type of gloves	Breakthrough time
A	≥30 min for at least 6 chemicals
B	≥30 min for at least 3 chemicals
C	≥10 min for at least 1 chemical



From 21/04/2018

LIST OF CHEMICALS:

Letter code	Chemical	CAS number	Class
A	Methanol	67-56-1	Primary alcohol
B	Acetone	67-64-1	Ketone
C	Acetonitrile	75-05-8	Nitrile compound
D	Dichloromethane	75-09-2	Chlorinated hydrocarbon
E	Carbon disulphide	75-15-0	Organic compound containing sulphur
F	Toluene	108-88-3	Aromatic hydrocarbon
G	Diethylamine	109-89-7	Amine
H	Tetrahydrofurane	109-99-9	Heterocyclic ether
I	Ethyl acetate	141-78-6	Ester
J	n-Heptane	142-82-5	Saturated hydrocarbon
K	Caustic soda 40%	1310-73-2	Inorganic base
L	Sulfuric acid 97%	7664-93-9	Inorganic mineral acid
M	65% Nitric acid	7697-37-2	Inorganic mineral acid, oxidizing
N	99% Acetic acid	64-19-7	Organic acid
O	25% Ammonium hydroxide	1336-21-6	Organic base
P	30% Hydrogen peroxide	7722-84-1	Peroxide
S	40% Hydrofluoric acid	7664-39-3	Inorganic mineral acid, contact poison
T	37% Formaldehyde	50-00-0	Aldehyde

NEW CHEMICALS

EN ISO 374-5:  
2016

Protection against micro-organisms

EN ISO 374-5



EN ISO 374-5



VIRUS

Micro-organisms are defined by the standard as bacteria, fungi or viruses. To claim resistance to bacteria and fungi the glove must pass the penetration resistance test according to standard EN 374-5: 2016. If the glove passes ISO 16604: 2004 (method B) test it can claim resistance to viruses as well, and the term “VIRUS” will be added below the biohazard pictogram.

ISO 18889



Workers in agricultural and farming activities are exposed to numerous pesticides that are harmful to their health. The ISO 18889 standard establishes minimum performance, classification, and labelling requirements for gloves worn by:

- Operators handling and/or applying pesticides and
- Re-entry workers who are often in contact with dry or partially dry pesticides in a previously treated area, to protect their hands and forearms from contact with these substances.
- G1 gloves provide a lower level of protection than G2 gloves. These gloves can be used when the risk is relatively low (only diluted pesticides) and there's no cut risk at all. G1 gloves are typically single-use gloves.
- G2 gloves can be used when the potential risk is higher (also with concentrated pesticides) and when a minimal mechanical strength is necessary (ex. against abrasion & cut).
- GR gloves can be used by workers returning to cultivation, getting in contact with dry and/or partially dried pesticide residues remaining on the plants after pesticide application.

EN 388: 2016

Mechanical risks



**A) ABRASION RESISTANCE (0-4)**  
Number of cycles required to abrade a hole using abrasive paper in a circular sample of glove material under constant pressure and motion.

**B) BLADE CUT RESISTANCE BY COUP TEST (0-5)**  
Number of cycles required to cut a sample using a stainless steel circular blade under constant speed and low force of 5 newtons (approx. 510g). For materials that dull the blade, after a certain number of cycles without cut through, the ISO 13997 test is performed and becomes the reference cut resistance value.

**C) TEAR RESISTANCE (0-4)**  
Force required to propagate a tear in a rectangular sample of a glove with a starting incision, to a maximum force of 75N (approx. 7,6kg).

**D) PUNCTURE RESISTANCE (0-4)**  
Force required to puncture the sample with a standard size steel point at a constant speed of 10 cm/min.

**E) BLADE CUT RESISTANCE BY ISO TEST (A-F)**  
Force in newtons (N) required to cut through a sample using a rectangular blade in a specified cut test machine such as Tomodynamometer (TDM). This test is optional unless the blade in Coup test becomes dull, whereupon it becomes the reference for cut resistance. A letter value is assigned as follows:

Level of protection	A	B	C	D	E	F
Force in newtons	>2	≥5	≥10	≥15	≥22	≥30
Cut resistance	LOW	MEDIUM			HIGH	

**F) IMPACT RESISTANCE (P)**  
For protective gloves claiming impact resistance. Measures dissipation of force by the area of protection upon an impact of a domed anvil at an impact energy of 5 joules. Testing is carried out in accordance with the impact protection test for motorcycle protective gloves of EN 13594:2015 standard. A letter “P” is added on successful pass, while a fail remains unmarked.

Level X can also be applied for a – f above, which means “not tested”.

Level of protection	1	2	3	4	5
Abrasion resistance (number of cycles)	>100	≥500	≥2000	≥8000	-
Blade cut resistance by Coup test (index)	>1,2	≥2,5	≥5	≥10	≥20
Tear resistance (force in newtons)	>10	≥25	≥50	≥75	-
Puncture resistance (force in newtons)	>20	≥60	≥100	≥150	-



EN 511: 2006

Cold-related risks



Tested levels of glove performance in terms of the following risks:

- Climatic or industrial cold transmitted by convection (0 to 4).
- Climatic or industrial cold transmitted by contact (0 to 4).
- Impermeability to water (0 or 1).

If the glove shows this symbol, it has achieved a performance index for (from left to right) climatic cold or industrial cold transmitted by convection, climatic cold or industrial cold transmitted by contact, impermeability to water.

“O” means that during the test level 1 was not reached.

“X” means that the test was not performed or not possible.

EN 407: 2020

Protective gloves and other hand protective equipment against thermal risks (heat and/or fire)



Claims a limited flame spread level of performance (at least level 1), flame protection is claimed



Does not claim a limited flame spread level of performance and no flame protection is claimed

This standard is used to define test methods, marking, requirements, and any other information for gloves against thermal risks such as conductive heat, radiant heat, etc.

HEAT-RELATED RISKS

Tested levels of glove performance in terms of the following risks:

- Resistance to limited flame spread (0 to 4)
- Resistance to contact heat (0 to 4)
- Resistance to convective heat (0 to 4)
- Resistance to radiant heat (0 to 4)
- Resistance to small splashes of molten metal (0 to 4)
- Resistance to large quantities of molten metal (0 to 4)
- “O” means that during the test level 1 was not reached.
- “X” means that the test was not performed or not possible.

EN 1149

Protective clothing - Electrostatic properties

- Part 1 – Test method for Surface Resistance of the article.
- Part 2 – Test method for measurement of the electrical resistance through an article.
- Part 3 – Test method for charge decay at a single point of the article.
- Part 5 – Article performance and design requirements.

EN 16350

Protective clothing - Electrostatic properties

Standard to be used in ATEX zone (working place/condition with risk of explosion) EN 16350 utilizes EN 1149-2 as test method and is part of the EN 21420

RISKS RELATED TO FOOD CONTACT



There are products intended to come into contact or are brought into contact with foodstuffs or with water that is for human consumption. According to Regulation 1935/2004: «The materials and articles must be manufactured in accordance with good manufacturing practice so that, under normal or foreseeable conditions for their use, they do not transfer their constituents to food in quantities which could:

- Present a danger to human health,
- Results in an unacceptable change in the composition of the foodstuffs or a deterioration in the organoleptic characteristics thereof.»

All SHOWA® gloves with the «food contact» logo are conform to Regulation (EU) No 1935/2004 and the Regulation (EU) No 2023/2006, as well as Regulation (EU) 10/2011.

EUROPEAN REGULATION MDR 2017/745 FROM DIRECTIVE 93/42/EEC COVERING MEDICAL EXAMINATION AND SURGICAL GLOVES

EN 455-1

Freedom from holes

A random sample of gloves is tested for freedom of holes by undergoing a water leak penetration test. The gloves are filled with 1l of water and must remain completely leak proof over a defined period of time. A failed test results in a higher AQL value, which for medical gloves sold in Europe must be 1,5 or lower.

AQL (accepted quality level) is a quality sampling procedure ISO 2859-1 used by manufacturers for measuring the % likelihood of pinhole defects in a batch of single use gloves. An AQL of 1,5 brings a statistical probability that less than 1,5% of the gloves in the batch will have defects.

EN 455-2

Physical properties

Size and tensile strength requirements for single use medical gloves. No less than 240mm in median length and 95mm (±10mm) median width to provide adequate protection along full length of the hand (exception for long cuff gloves).

Strength is measured by elongation until breaking point, indicated as Force At Break (FAB) in newtons (N). FAB is measured on standard sample and on a rapid aged sample that is kept at 70°C for 7 days to simulate glove deterioration during prolonged shelf life. FAB requirements differ per glove material and if the glove is for examination or surgical purpose. Indication of median minimum FAB values:

	Force at break (N) during shelf life	
	Rubbers (e.g. natural natural rubber, nitrile)	Thermoplastics (e.g. PVC, vinyl, butyl)
Examination glove	≥ 6,0	≥ 3,6
Surgical glove	≥ 9,0	-

EN 455-3

Biological evaluation

A number of important requirements are specified to maintain biological safety of the glove for the medical practitioner as well as the patient. “NATURAL RUBBER” pictogram on packaging for natural rubber gloves is mandatory. No terms suggesting relative safety of usage are permitted i.e. low allergenicity, hypoallergenicity or low protein content. Powder residue, which is seen as unwanted contaminant on medical gloves, must not exceed 2mg per glove with “powder-free” claim. Water extractable natural rubber protein content in natural rubber gloves must not exceed 50 microgram per gram of rubber to minimise natural rubber exposure that can cause allergic reactions. The level of endotoxins generated by bacteria on sterile gloves that claim “low endotoxin level” may not exceed 20 EU per glove pair (EU=Endotoxin Units).

EN 455-4

Shelf life determination

The standard ensures there is no performance degradation during storage period prior to use. Accelerated aging tests are performed on glove samples to determine shelf life, to enable manufacturers to prove that their product will withstand (usually) up to 3 years and in some cases up to 5 years without losing their strength and protection properties.



# GLOVE SIZE CHART

It is crucial to get the glove size right for maximum dexterity.

Here are a few recommendations to help you in finding the right size of gloves you need.

Glove size further to EN 420	Hand (mm)		Glove (mm)
	Palm circumference	Length	Minimum length
6	152	160	220
7	178	171	230
8	203	182	240
9	229	192	250
10	254	204	260
11	279	215	270

## COLOUR-CODED CUFF

Some styles of SHOWA® gloves have a colour-coded cuff. These cuffs enable the size recognition in the factory and the pairing after washing the gloves.

## TESTING PRIOR TO USING

If the glove is too small, it cuts off the blood circulation and restricts the movement of the hand. On the other hand, oversized gloves slip off at the slightest movement and make your handling very imprecise. To be sure of your size and fit, do not hesitate to ask for samples from your SHOWA® distributor.



### PLACE YOUR RIGHT HAND ON THE DIAGRAM:

The green line should be between your thumb and index finger.  
The size is indicated on the right.

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### COMMITTED TO SAFE MANUFACTURING

REACH is a regulation of the European Union, adopted to improve the protection of human health and the environment from the risks that can be posed by chemicals, while enhancing the competitiveness of the EU chemicals industry. It also promotes alternative methods for the hazard assessment of substances in order to reduce the number of tests on animals. REACH stands for Registration, Evaluation, Authorisation and Restriction of Chemicals. REACH establishes procedures for collecting and assessing information on the properties and hazards of substances. SHOWA's whole manufacturing process is in line with the requirements of the European REACH Regulation. All SHOWA® products today and in the future will remain free from substances of very high concern (SVHC).