



6,600 EMPLOYEES WORLDWIDE



100 + RESEARCHERS



PRODUCTION FACILITIES AROUND THE GLOBE

OOOOO PATENTS



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100%

INTEGRATED MANUFACTURING





71 YEARS

OF UNRIVALED PROTECTION & INNOVATION

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SHOWA INDUSTRIAL SERIES

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SHOWA GROUP



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.

GLOBAL REACH



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



LIQUIDS



PURPOSE



INSULATED









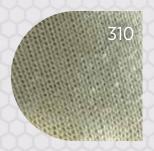






MATERIALS AND THEIR PERFORMANCE

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!



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.



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.



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.



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.



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).

EACH COATING HAS ITS QUALITIES

NITRILE

Anti-slip vulcanised synthetic rubber

- C 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)
- O Does not contain Natural Rubber proteins
- O Dissipates static electricity: prevents electrostatic discharge

- ···· Pelatively rigid
 - Normally low tear resistance
 - No chemical resistance against ketones and some chlorinated hydrocarbons, this is necessary because both methylene chloride and trichloroethylene are chlorinated hydrocarbons

NATURAL RUBBER

Natural rubber latex mainly from the rubber tree

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

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

POLYURETHANE •• Very flexible and elastic

PU

Plastic that is a microprous elastomer

- O Does not contain Natural Rubber proteins
- Clean does not shed particles like other polymers
- Good resistance to abrasion
- Good resistance to oil
- O Does not harden in the cold
- Open not soften in the heat
- Excellent perspiration thanks to porous ventilation

- Dow chemical resistance
 - Poor resistance to hot water

PVC -----

POLY VINYL CHLORIDE

Impermeable plastic

- Flexible at even -20°C
- O Material softened by a plasticizer
- 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
- O 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
- O 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

- OPProtects where nothing else protects
- Chemical protection against PCBs
- C Excellent chemical protection against chlorinated, aliphatic and aromatic hydrocarbons
- ···· DLimited 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 & 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 & 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 & training on hand protection against chemicals

EVALUATE

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

EQUIP

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



VISIT 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.



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

ECO BEST TECHNOLOGY GLOVES COME FROM GUATEMALA AND THE USA WITH A LOWER CARBON FOOTPRINT

EBT gloves offer the best protection, performance and are better for the planet.



CARBON EMISSIONS FROM COMMERCIAL AVIATION BETWEEN ASIA AND EUROPE 2013-2019, MILLION METRIC TONS



95%

of protective gloves are currently manufactured in Asia, compared to just 1% from the American continent.

Freight CO₂ emissions between Asia and Europe are projected to increase by

124% more than for North America to Europe.





Double dipped nitrile coating with rough grip over seamless liner

BENEFITS

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



SHOWA 5701

Double dipped nitrile coating with rough grip over seamless liner and forearm protection

BENEFITS

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



SHOWA

Foamed nitrile palm coating with enhanaced grip and seamless liner

BENEFITS

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

FEATURES

Liner: Polyester Coating: Double coated Nitrile Grip: Rough

APPLICATIONS

- Chemical spray and treatment
- · Light Chemical Handling in Horticulture, Agriculture
- Coating preparation
- Laboratory, pharma & analysis
- Painting & spray workshops
- Fruit & vegetable processing
- o 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	300mm
CS700	11/XXL	300mm















FEATURES

Liner: Polvester

Coating: Double coated Nitrile

Grip: Rough

APPLICATIONS

- Chemical spray and treatment
- Light Chemical Handling in Horticulture, Agriculture
- Coating preparation
- o Laboratory, pharma & analysis
- Painting & spray workshops
- Fruit & vegetable processing
- o 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	350mm
CS701	11/XXL	350mm













FEATURES

Liner: Polyester

Coating: Double coated Nitrile

Microporous Nitrile

Grip: Foam

APPLICATIONS

- Chemical spray and treatment
- · Light Chemical Handling in Horticulture, Agriculture
- Coating preparation
- o Laboratory, pharma & analysis
- Painting & spray workshops
- Fruit & vegetable processing
- o 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	300mm
CS710	11/XXL	300mm











SHOWA INDUSTRIAL SERIES



Foamed nitrile palm coating with enhanced grip and seamless liner offering forearm protection

BENEFITS

- · Chemical-resistant
- o Oil-resistant
- Extra Grip
- o Seamless knit
- Robust durability
- Forearm protection
- o Natural rubber free

FEATURES

Liner: Polvester

Coating: Double coated Nitrile

Microporous Nitrile

Grip: Foam

APPLICATIONS

- Chemical spray and treatment
- · Light Chemical Handling in Horticulture, Agriculture
- Coating preparation
- Laboratory, pharma & analysis
- Painting & spray workshops
- Fruit & vegetable processing
- o Grain, mill and starch products

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











SHOWA

Rough finish nitrile palm coating over polyester liner

BENEFITS

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

FEATURES

Liner: Polyester

Coating: Double Coated Nitrile

Grip: Rough

APPLICATIONS

- $\,^{\circ}$ Chemical spray and treatment
- · Light Chemical Handling in Horticulture, Agriculture
- Coating preparation
- · Laboratory, pharma & analysis
- Painting & spray workshops
- Fruit & vegetable processing
- o Grain, mill and starch products
- Washing and cleaning

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













Rough finish nitrile palm coating over polyester liner offering forearm protection

BENEFITS

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

FEATURES

Liner: Polyester

Coating: Double Coated Nitrile

Grip: Rough

- $\,^{\circ}$ Chemical spray and treatment
- · Light Chemical Handling in Horticulture, Agriculture
- Coating preparation
- · Laboratory, pharma & analysis
- Painting & spray workshops
- Fruit & vegetable processing
- o 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	350mm
CS721	11/XXL	350mm



























Unsupported full nitrile coating with tractor tread finish unlined

BENEFITS

- Biodegradable
- Form-fitting
- Easy donning and doffing
- Chemical-resistant
- Oil-resistant
- Water-resistant
- Abrasion-resistant
- Hydrocarbon-resistant
- Impermeable

FEATURES

Liner: Unlined Coating: Nitrile Thickness: 0,23mm Grip: Embossed

+ Ergonomic, Chlorinated, Eco Best Technology® (EBT) Rolled Cuff

- Chemical spray and treatment
- Coating preparation
- Food packing and handling
- Fruit & vegetable processing
- o Poultry, meat & seafood processing
- Sanitation and dishwashing
- Washing and cleaning
- · Laboratory, pharma & analysis

REF	SIZE	LENGTH
707D	6/XS	305mm
707D	7/S	305mm
707D	8/M	305mm
707D	9/L	305mm
707D	10/XL	305mm
707D	11/XXL	305mm

















Cotton flocklined nitrile gauntlet with tractor tread finish

BENEFITS

- Biodegradable
- Forearm protection
- Form-fitting
- · Easy donning and doffing
- Chemical-resistant
- Oil-resistant
- Water-resistant
- Abrasion-resistant
- Hydrocarbon-resistant
- Impermeable

FEATURES

Liner: Cotton Flocked Coating: Nitrile Thickness: 0,28mm Grip: Embossed

+ Ergonomic, Chlorinated, Eco Best Technology® (EBT) Rolled Cuff

- Chemical spray and treatment
- Coating preparation
- Food packing and handling
- Fruit & vegetable processing
- Poultry, meat & seafood processing
- Sanitation and dishwashing
- Washing and cleaning
- Laboratory, pharma & analysis

REF	SIZE	LENGTH
707FL	6/XS	305mm
707FL	7/S	305mm
707FL	8/M	305mm
707FL	9/L	305mm
707FL	10/XL	305mm
707FL	11/XXL	305mm











SHOWA 707HVO

Unsupported, unlined, biodgradable nitrile engineered with EBT® technology

BENEFITS

- Biodegradable
- Form-fitting
- Abrasion-resistant
- o Oil-resistant
- Hvdrocarbon-resistant
- Increased visibility
- Water-resistant
- Chemical-resistant
- Easy donning and doffing

FEATURES

Liner: Unlined Coating: Nitrile Thickness: **0,23mm** Grip: Bisque

+ Rolled Cuff, Chlorinated, Eco Best Technology® (EBT),

- Chemical spray and treatment
- Coating preparation
- Food packing and handling
- Sanitation and dishwashing
- Washing and cleaning
- · Laboratory, pharma & analysis
- Pharmaceuticals and API

REF	SIZE	LENGTH
707HVO	6/XS	305mm
707HVO	7/S	305mm
707HVO	8/M	305mm
707HVO	9/L	305mm
707HVO	10/XL	305mm
707HVO	11/XXL	305mm











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.

Utilizing the organic process to measure how our gloves break down in a natural setting, our EBT technology outperforms the industry norm in enviro-standardized 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.

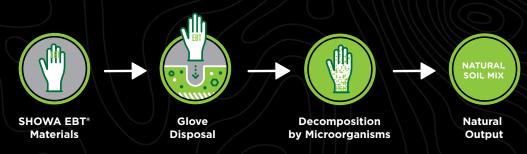
*As proven with ASTM D5511 & D5526 test results



의 **ASTM ASTM** 의 D5526 D5 5 11



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.



727

Unsupported, full nitrile coating with textured finish



SHOWA

730

Unsupported, full nitrile coating with textured finish over cotton flocklined

BENEFITS

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

BENEFITS

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



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.

FEATURES

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

+ Ergonomic, Unsupported

FEATURES

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

APPLICATIONS

Agriculture

+ Ergonomic, Unsupported

Chemical spray and treatment

Painting & spray workshops

Coating preparation

Washing and cleaning

• Light Chemical Handling in Horticulture,

Light assembly of oil-coated pieces

APPLICATIONS

- Chemical spray and treatment
- Light Chemical Handling in Horticulture, Agriculture
- Light assembly of oil-coated pieces
- Painting & spray workshops
- Coating preparation
- Washing and cleaning

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



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









NITRILE



SHOWA

Unsupported, nitrile coating with textured finish



SHOWA

Unsupported, full nitrile coating with textured finish

BENEFITS

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

BENEFITS

- Forearm protection
- · Chemical-resistant
- o Oil-resistant
- Impermeable

FEATURES

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

+ Ergonomic, Textured Finish, Unsupported

APPLICATIONS

- Light assembly of oil-coated pieces
- Painting & spray workshops
- $\,^{\circ}$ Chemical spray and treatment
- Coating preparation
- o Laboratory, pharma & analysis
- Pool /Pond Maintenance
- Handling plants and vegetables
- Washing and cleaning

FEATURES

Coating: Nitrile Thickness: 0,56mm Grip: Textured

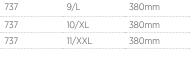
+ Unsupported, Textured Finish **Ergonomic**

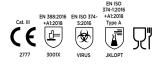
APPLICATIONS

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

REF	SIZE	
747	9/L	
747	10/XL	
747	11/XXL	
747	10/XL	

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

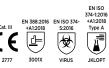






LENGTH

480mm











SHOWA

Unsupported, biodegradable nitrile coating (EBT®) with textured finish over cotton flocklined

BENEFITS

- Chemical-resistant
- Extra Grip
- Increased dexterity
- Biodegradable
- Water-resistant
- Flexible
- Acid-resistant
- Reusable

FEATURES

Liner: Cotton Flocked Coating: Nitrile, Unsupported

Thickness: 0,38mm Grip: Textured

+ Eco Best Technology® (EBT), Created with premium-grade compounds, Strong chemical resistance

- Chemical spray and treatment
- Handling plants and vegetables
- Handling light chemicals in agriculture, horticulture
- Light assembly of oil-coated pieces
- Coating preparation
- Assembly dry and oily parts
- Food packing and handling
- Washing and cleaning
- Deck crew

REF	SIZE	LENGTH
731	7/S	330mm
731	8/M	330mm
731	9/L	330mm
731	10/XL	330mm
731	11/XXL	330mm









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 Grip: Rough

+ Eco Best Technology® (EBT)

APPLICATIONS

- Light Chemical Handling in Horticulture, Agriculture
- Painting & spray workshops
- Chemical spray and treatment
- Coating preparation
- Food Service/Food Prep
- Sanitation and dishwashing
- Washing and cleaning
- o Deck crew.
- Water/Sewage treatment

REF	SIZE	LENGTH
NSK 24	8/S	350mm
NSK 24	9/M	350mm
NSK 24	10/L	350mm
NSK 24	11/XL	350mm



















BIODEGRADATION PROCESS













SHOWA

Unsupported natural rubber/ neoprene coating with embossed grip over cotton flocklined

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 & spray workshops
- Chemical spray and treatment
- Coating preparation
- Assembly dry and oily parts
- Washing and cleaning

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







SHOWA INDUSTRIAL SERIES



Full neoprene coating over polyester liner



SHOWA

Full neoprene coating over engineered cut resistant liner

BENEFITS

- o Extra Grip
- Flexible
- o Oil-resistant
- · Chemical-resistant
- Increased dexterity
- Skin-friendly
- Seamless knit
- Acid-resistant

FEATURES

Liner: Polyester

Coating: Fully-coated neoprene

Grip: Rough

Strong chemical resistance

APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Component Assembly
- Pipe Fitters
- o 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











BENEFITS

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

FEATURES

Liner: **HPPE**

Coating: Fully-coated neoprene

Grip: Rough

Strong chemical resistance

APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- $\,{}^{\circ}$ Handling glass and windows
- Window manufacturing
- · Handling heavy equipment
- o Drilling
- o 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**

3110WA 3413 A	11D 5-10	•
CHEMICAL AGENT	CAS NUMBER	ASTI F739 BDT
ACETALDEHYDE	75-07-0	8
ACETONE	67-64-1	17
BENZENE	71-43-2	32
CYCLOHEXANE	110-82-7	>480
CYCLOHEXANONE	108-94-1	140
DIISOBUTYL KETONE	108-83-8	380
MEK	78-93-3	22
METHANOL	67-56-1	136
METHYL ISOPROPYL KETONE	563-80-4	44
METHYLENE CHLORIDE	75-09-2	7
OLEUM (20% FREE SO3)	8014- 95-7	165
PENTANE	109-66-0	>480
PHENOL, > 89%	108-95-2	359
SULFURIC ACID, 96%	7664- 93-9	265
TETRACHLOROETHYLENE	127-18-4	188
TOLUENE	108-88-3	36
TOLUENE 2,4-DIISOCYANATE	584-84-9	>480
XYLENE	1330- 20-7	66



SHOWA 6780

Rugged neoprene coating with soft cotton liner



SHOWA 780R

Rugged neoprene coating with rough grip and soft cotton liner



SHOWA 6781R

Full neoprene coating over cotton jersey liner

BENEFITS

- Chemical-resistant
- Cut-resistant
- o Abrasion-resistant
- Acid-resistant
- Oil-resistant
- o Soft liner
- Reusable
- Water-resistant

FEATURES

Liner: Cotton

Coating: Fully-coated neoprene

Grip: Smooth

APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Assembly dry and oily parts
- Deck crew

BENEFITS

- o Chemical-resistant
- Cut-resistant
- Abrasion-resistant
- · Acid-resistant
- Oil-resistant
- Water-resistant
- Soft liner
- Extra Grip

FEATURES

Liner: Cotton

Coating: Fully-coated neoprene

Grip: Rough

APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- Assembly dry and oily parts
- o Deck crew

BENEFITS

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

FEATURES

Liner: Cotton

Coating: Fully-coated neoprene

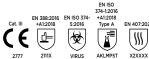
Grip: Rough Insulated

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

REF	SIZE	LENGTH
6780	10/L	305mm



REF	SIZE	LENGTH	
6780R	10/L	305mm	
***************************************		······································	



REF	SIZE	LENGTH
6781R	10/L	305mm















SHOWA 6781R-06

Strong neoprene coating with a nitrile insulated sleeve and rough grip



- · Chemical-resistant
- Burn protection
- o Extra Grip
- · Abrasion-resistant
- Soft liner
- · Cut-resistant
- Heat-resistant

FEATURES

Liner: Cotton

Coating: Fully-coated neoprene

Grip: Rough

Insulated nitrile sleeve

APPLICATIONS

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



SHOWA

6781R-145

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

BENEFITS

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

FEATURES

Liner: Cotton

Coating: Fully-coated neoprene

Grip: Rough

Insulated nitrile sleeve

APPLICATIONS

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



Both models displayed are used to protect the hands against heat, working with temperatures up to 662°F or 350°C. The SHOWA 6781R-145 offers full arm protection being 650mm long compared to the 6781R-06 at 457mm long.

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





















6781R-145





SIZE

10/L



LENGTH

650mm



SHOWA

Rugged neoprene coating over soft liner providing enhanced dry grip



SHOWA 784R

Rugged neoprene, rough surface grip and soft cotton liner



SHOWA

Full neoprene coating over breathable cotton liner with elbow length gauntlet

BENEFITS

- Acid-resistant
- Chemical-resistant
- o Oil-resistant
- Abrasion-resistant
- Cut-resistant
- Forearm protection

BENEFITS

- Acid-resistant
- Chemical-resistant
- o Oil-resistant
- · Abrasion-resistant
- Cut-resistant
- Forearm protection

BENEFITS

- · Acid-resistant
- Chemical-resistant
- o Oil-resistant
- Forearm protection
- Abrasion-resistant
- Breathable
- Water-resistant

FEATURES

Liner: Cotton

Coating: Fully-coated neoprene

Grip: Smooth

FEATURES

Liner: Cotton

Coating: Fully-coated neoprene

Grip: Rough

FEATURES

Liner: Cotton

Coating: Fully-coated neoprene

Grip: Smooth

APPLICATIONS

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

APPLICATIONS

- · Biotechnology
- Cytostatics
- Life sciences
- Pharmaceuticals and API

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

6784 10/L 350mm	REF	SIZE	LENGTH
	6784	10/L	350mm

REF	SIZE	LENGTH
6784R	10/L	350mm

REF	SIZE	LENGTH
6797	10/L	457mm























6797R

Rugged neoprene coating over breathable cotton liner, with rough surface grip and elbow length gauntlet

BENEFITS

- Acid-resistant
- Chemical-resistant
- o Oil-resistant
- Forearm protection
- Abrasion-resistant
- $\circ \ \mathsf{Breathable}$
- Water-resistant

FEATURES

Liner: Cotton

Coating: Fully-coated neoprene

Grip: Rough

APPLICATIONS

- Acid-resistant
- Chemical-resistant
- Oil-resistant
- Forearm protection
- o Abrasion-resistant
- Breathable
- Water-resistant



SHOWA NE

Premium neoprene coating with embossed finish for optimum grip and 45cm extended gauntlet

BENEFITS

- Easy donning and doffing
- Forearm protection
- o Oil-resistant
- · Chemical-resistant
- Abrasion-resistant
- Cut-resistant
- · Robust grip
- o Durable

FEATURES

Liner: Unlined

Coating: Fully-coated neoprene, Flocked

Thickness: **0,76mm**Grip: **Bisque**

APPLICATIONS

- Coating preparation
- Painting & spray workshops
- Chemical spray and treatment
- Washing and cleaning

SHOWA

660ESD

Full PVC coating with extra PVC rough finish on the hand over cotton liner

BENEFITS

- o Oil-resistant
- Extra Grip
- Abrasion-resistant
- Form-fitting
- Soft liner
- Anti-static
- Chemical-resistant

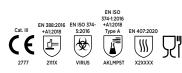
FEATURES

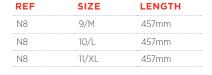
Liner: Cotton flocked, Anti-static

Coating: Full PVC Grip: Rough Ergonomic

- $\,^{\circ}$ Chemical spray and treatment
- Install electrical wiring

REF	SIZE	LENGTH
	10/L	457mm







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





KNOW YOU'RE PROTECTED

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.

HOW TO USE CHEMREST.COM



STEP 1

Visit ChemRest.com and select your location and language.



STEP 2

Search for either 1) the chemical name or CAS number you are interested in, or 2) the glove you are using.



STEP 3

Select the chemical, product, or CAS and hit search (multiple chemicals can be selected at once).



STEP 5

Register for your free account and download your chemical data.



STEP 4

See the results for the related chemical information and the breakthrough time that it will take the selected chemical to reach your hand through the glove.



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



SHOWA

Full PVC coating with extra PVC rough finish on the hand over cotton liner



SHOWA

Full PVC coating with extra finish over cotton liner



SHOWA

Full PVC coating with extra rough finish over cotton liner, extended bond sleeves, elasticated border and eyelet ventilation

BENEFITS

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

FEATURES

Liner: Cotton

Coating: Full PVC coating, extra coating over entire hand, Scalloped edge

Grip: Rough

+ Ergonomic, Antibacterial, Anti-odor

APPLICATIONS

- Chemical spray and treatment
- Coating preparation

REF

650

650

650

650

Painting & spray workshops

BENEFITS

- o Seamless knit
- Forearm protection
- · Chemical-resistant
- Increased Tactility
- · Robust grip
- Water-resistant
- Machine washable

o Durable

FEATURES

Liner: Cotton

Coating: Triple-dipped PVC coating

Grip: Rough

+ Ergonomic, Anti-odor

APPLICATIONS

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

BENEFITS

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

FEATURES

Liner: Cotton

Coating: Full PVC Coating

Grip: Rough

+ Extended Bonded Sleeve, **Elasticated border**

APPLICATIONS

- · Chemical spray and treatment
- Handling plants and vegetables
- Light Chemical Handling in Horticulture, Agriculture
- Coating preparation
- o Laboratory, pharma & analysis
- Painting & spray workshops
- Washing and cleaning
- Pool /Pond Maintenance
- Public utility

REF	SIZE	LENGTH
690	8/M	660mm
690	9/L	660mm
690	10/XL	660mm



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







SIZE

8/M

9/L

10/XL

LENGTH

250-270mm

250-270mm

250-270mm



showa 771

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

BENEFITS

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

FEATURES

Liner: Cotton, Scalloped edge Coating: Full nitrile coating, extra coating over entire hand Thickness: 0,50mm Grip: Rough

APPLICATIONS

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

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









772

Full nitrile coating, with extra nitrile coating on the hand over cotton/polyester liner with extended sleeve and elasticated border

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: Fully-coated nitrile, Double coated Nitrile on hand Thickness: 0,50mm

Grip: Rough APPLICATIONS

- Chemical spray and treatment
- Light Chemical Handling in Horticulture, Agriculture
- Coating preparation
- · Laboratory, pharma & analysis
- Painting & 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 and elasticated border

BENEFITS

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

FEATURES

Liner: Cotton/Polyester Coating: Nitrile Grip: Rough

APPLICATIONS

- Chemical spray and treatment
- · Laboratory, pharma & analysis
- Painting & spray workshops
- Life sciences
- Water/Sewage treatment

REF	SIZE	LENGTH
NSK26	8/S	650mm
NSK26	9/M	650mm
NSK26	10/L	650mm
NSK26	11/XL	650mm









SHOWA INDUSTRIAL SERIES

BUTYL



874

Unlined, unsupported butyl coating with smooth grip finish

BENEFITS

- Acid-resistant
- Impermeable
- Water-resistant



874R

Unlined, unsupported butyl coating with rough grip finish

BENEFITS

- Acid-resistant
- Impermeable
- Water-resistant



SHOWA

Unlined, unsupported butyl coating with smooth grip finish

BENEFITS

- Acid-resistant
- Impermeable
- Water-resistant

FEATURES

Liner: Unlined
Coating: Butyl
Thickness: 0,35mm
Grip: Smooth
Rolled Cuff

APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- · Laboratory, pharma & analysis
- Painting & spray workshops
- Fracking
- o 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



FEATURES

Liner: Unlined Coating: Butyl Thickness: 0,35mm Grip: Rough Rolled Cuff

APPLICATIONS

- $\,^{\circ}$ Chemical spray and treatment
- Coating preparation
- · Laboratory, pharma & analysis
- Painting & spray workshops
- Washing and cleaning
- Public utility
- Pipe Fitters
- o 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



FEATURES

Liner: Unlined
Coating: Butyl
Thickness: 0,70mm
Grip: Smooth
Rolled Cuff

- $\,^{\circ}$ Chemical spray and treatment
- Coating preparation
- · Laboratory, pharma & analysis
- Painting & 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



SHOWA

892

Unlined viton over butyl coating

BENEFITS

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

BENEFITS

- o Acid-resistant
- Hydrocarbon-resistant
- Impermeable

FEATURES

Liner: Unlined

Coating: Viton® over Butyl

Thickness: **0,70mm**Grip: **Smooth**

APPLICATIONS

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

FEATURES

Liner: Unlined

Coating: Viton® over Butyl

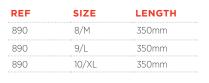
Thickness: 0,30mm

Grip: Smooth

APPLICATIONS

- Chemical spray and treatment
- Coating preparation
- ° Laboratory, pharma & analysis
- Painting & spray workshops
- Fracking
- o 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 slightly thinner glove.

SHOWA INDUSTRIAL SERIES





Full PVC coating, extra PVC coating on the entire hand over cotton liner



BENEFITS

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

FEATURES

Liner: Cotton

Coating: Full PVC coating, extra coating

over entire hand

+ Ergonomic, Rough finish, Scalloped edge

APPLICATIONS

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

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SHOWA

Full PVC coating, extra PVC coating on the entire hand over cotton liner, long cuffs

BENEFITS

- · Acid-resistant
- Seamless knit
- Abrasion-resistant
- Extra Grip
- Water-resistant
- · Chemical-resistant
- Strong
- Flexible
- Soft liner

FEATURES

Liner: Cotton

Coating: Full PVC coating, extra coating over entire hand

Grin: Rough

+ Ergonomic

APPLICATIONS

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

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

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







Permeation

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

Penetration

The process by which a substance moves through a closure, seam or pinhole in protective clothing on a nonmolecular 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 clothing measured using sensitive analytical testing. It is essentially the number of minutes until your skin is exposed inside the gloves or other protective clothing.

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, discoloration, hardening or loss of tensile strength.

Concentration

The amount or mass of a constituent divided by the total mass of a solution. Normally all Organic Solvents tested in this site are 100% pure. Acids and Caustics are solutions in water. In permeation testing of acids, in particular, the concentration will affect the breakthrough time. More concentrated acids will permeate sooner than dilutions.





Full PVC coating, extra PVC coating on the entire hand over cotton liner, with extended bonded sleeve, elasticated border and eyelet for ventilation and hanging

BENEFITS

- Acid-resistant
- · Seamless knit
- · Abrasion-resistant
- Extra Grip
- Water-resistant
- · Chemical-resistant
- Strong
- Flexible
- Full-arm protection

FEATURES

Liner: Seamless Knit Coating: Full PVC coating, extra coating over entire hand

Grip: Rough

Liquid-resistant vinyl sleeve

APPLICATIONS

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

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



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



The SHOWA 160R has a full PVC coating which seals and protects hands and forearms against chemicals, perfect for household applications.



SHOWA

160R

Unsupported PVC glove coating over viscose flocked liner

BENEFITS

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

FEATURES

Liner: Viscose flocked

Coating: Unsupported, Full PVC Coating

Thickness: 0,30mm Grip: Embossed

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

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









SHOWA B0700R

Unsupported PVC glove



SHOWA

B0710

Unsupported PVC glove with extended bonded sleeve. elasticated border and eyelet for ventilation and hanging

BENEFITS

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

BENEFITS

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

FEATURES

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

APPLICATIONS

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

FEATURES

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

APPLICATIONS

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

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The SHOWA B0710 is 600mm in length compared to 300mm with the BO700R. Offering full arm protection. Perfect for all kinds of chemical spray and treatment.

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



REF	SIZE	LENGTH
B0170	7/S	600mm
B0170	8/M	600mm
B0170	9/L	600mm
B0170	10/XL	600mm
	/	





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 getgo. 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.

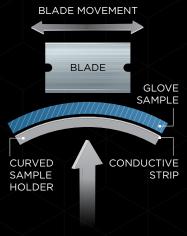
Development of new cut-resistant technology follows increasing demand for higher cut-resistant protection in work processes. While measuring the levels of cut resistance of different materials in the mesh of the glove, it became evident to our researchers that integration of stainless steel in liners 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
- Stainless steel
- Attending yarn (depending on glove)



VARIABLE LOAD APPLIED FROM BELOW 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.



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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

Hagane Coil® / Natural rubber ISO 13 997: F
EN 388 Cut Level F



Hagane Coil® / Microporous foam Nitrile ISO 13 997: E EN 388 Cut Level E



S-TEX 300

Hagane Coil® / Natural rubber ISO 13 997: D
EN 388 Cut Level D



SHOWA
S-TEX
377

Hagane Coil® / Foam nitrile over nitrile ISO 13 997: D
EN 388 Cut Level D



S-TEX
376

Hagane Coil® / Foam nitrile over nitrile ISO 13 997: D
EN 388 Cut Level D



S-TEX
350

Hagane Coil® / Nitrile ISO 13 997: D EN 388 Cut Level D



S-TEX **541** Hagane Coil® / Polyurethane ISO 13 997: D
EN 388 Cut Level D

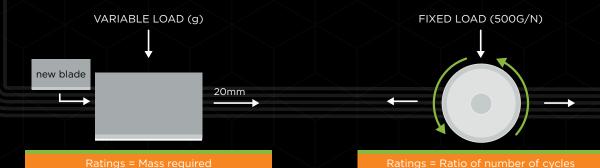
WHAT YOU NEED TO KNOW ABOUT THE NEW GLOBAL CUT STANDARDS

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.



TDM-100 CUT

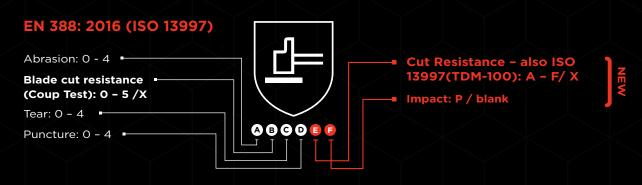
The Tomodynamometer (TDM-100) is used to determine the load required to cut through a glove sample using a straight-edge blade that moves along a straight path within a distance of 20mm. The sample is cut 5x each at three different loads.

COUP TEST CUT

Using a circular blade that moves back- andforth 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 & MARKINGS



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

EN 388: 2016

N=GX0.00981

FORCE = MASS X 0.00981

ANSI VS. EN

ANSI/ISEA 105: measures

MASS using grams

EN 388: measures

FORCE using newtons

LOW CUT LEVEL NEEDED	MEDIUM CUT LEVEL NEEDED	HIGH CUT LEVEL NEEDED		
А В	С	D	E	F
540D	4561	234	8110	8127
541	546X 546	234X	S-TEX 581	257
542	546W	S-TEX 541	3416	257X
545	346	S-TEX 300		S-TEX KV3
KV660	386	S-TEX 350		
	576	S-TEX 376		
	577	S-TEX 377		

GP-KV1

GP-KV2R

DURACOIL® SERIES

FOR CUT LEVEL C/A3

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

Shipping &

receiving



Tes	EN 388: 2016 sted to ISO 13997	A 2N-5N	B 5N-10N	C 10N-15N	D 15N-22N	E 22N-30N	F 30N+
	ATIONS	3N	5N		15N	25N	30N 35N 40N
	PPLIC/	Light material handling	building & assembly	Metal panels Small parts assembly (with		Cable trunking Food	Meat processingHeavy duty glass & bottlingPulp & paper
	AL AI	 Small parts assembly (without sharp edges) 	White goods manufacturingCarbon fiber handling	sharp edges) Light automotive body assembly	pressing oily metal parts Canning & bottling	deboningGlass & window handling	Heavy metal sheet handlingCanning
	YPIC	Cardboard packaging General	Recycling component dismantling	Sheet glass handling in production	Food preparation & processing	 Heavy pressing oily metal parts 	USE THIS SCALE TO FIND OUT WHICH CUT LEVEL

Automotive

& repairs

maintenance

Metal cut-off

recycling

INCREASE OF RISK SEVERITY

Electrical wire

& component

assembly

YOU NEED FOR THE

APPLICATION AT HAND!

CUT LEVEL B



540D

Polyurethane coating on palm over HPPE liner



SHOWA

541

Polyurethane coating on palm over HPPE liner



SHOWA

542

Polyurethane coating on palm over HPPE liner

BENEFITS

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

BENEFITS

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

BENEFITS

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

FEATURES

Liner: **Soft, HPPE reinforced**Coating: **Polyurethane coating**

Elasticated wrist cuff

+ Ergonomic

FEATURES

Liner: **HPPE reinforced**

Coating: Polyurethane coating

Grip: Rough

+ Ergonomic, Elasticated wrist cuff

FEATURES

Liner: **HPPE reinforced**

Coating: Polyurethane coating

Grip: Rough

+ Ergonomic, Elasticated wrist cuff

APPLICATIONS

- Intricate parts handling
- Mechanical and engineering

APPLICATIONS

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

- Bottling
- Canning
- Component Assembly
- White goods

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

REF	SIZE	LENGTH
541	6/S	220 - 280mm
541	7/M	220 - 280mm
541	8/L	220 - 280mm
541	9/XL	220 - 280mm
541	10/XXL	220 - 280mm

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









SHOWA

Nitrile cpating on palm over **HPPF** liner



SHOWA

Seamless coating on palm over **HPPF** liner



SHOWA

KV660

Full PVC coating, extra PVC coating on the entire hand over Kevlar® liner

BENEFITS

- Cut-resistant
- Seamless knit
- o Extra Grip
- Flexible
- Breathable

BENEFITS

- Full-arm protection

- Seamless knit
- Cut-resistant

BENEFITS

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

FEATURES

Liner: **HPPE reinforced** Coating: Nitrile palm Grip: Rough

+ Ergonomic, Seamless knit

FEATURES

Liner: **HPPE reinforced** Coating: Uncoated Grip: Rough

+ One-size-fits-all, Elasticated wrist cuff

FEATURES

Liner: Liner made with Kevlar® Coating: Triple-dipped PVC

Grip: Rough

APPLICATIONS

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

Bottling

REF

DS45

APPLICATIONS

LENGTH

450mm

SIZE

ONE SIZE

APPLICATIONS

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

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

SIZE REF **LENGTH** 545 6/S 210 - 240mm 7/M 545 210 - 240mm 545 8/L 210 - 240mm 545 9/XL 210 - 240mm







THE REVISION OF THE PPE REGULATIONS IN 2016 RESULTED IN A MARKET-WIDE DOWNGRADE IN EN 388 AND ANSI 105 CUT LEVEL SCORES FOR RE-CERTIFIED PRODUCTS. ACROSS THE BOARD, GENERAL-PURPOSE GLOVES FOR MEDIUM-LOW RISKS DECREASED FROM CUT LEVEL 5-C/A3 TO 5-B/A2 AND UNDER.





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 jeopardizes 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 R&D 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 fibers 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 fiber, then reinforcing it with High-Performance Polyethylene (HPPE). The technique is very important to user comfort; if not done correctly, the fibers will irritate the skin. This therefore creates a premium lightweight yarn that offers comfort, durability, and increased cut protection.



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 Microfiber and Nanofiber.

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 <u>Cut C/A3 glove models</u>, 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 optimized 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 & Snags	Durability & Tactility	Grip Handling Performance	Wet	: & Oil Grip Con	nfort
	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
546X Uncoated	0	0					
546 Polyurethane		0		•			
546W White reinforced polyurethane		Ð	0	0			
346 Natural rubber			0	0	0		
386 Microporous nitrile		0				0	
576 3/4 nitrile, extra foam nitrile		Đ					Ð
577 Fully dipped nitrile, extra foam nitrile		0					0



SHOWA DURACoil®

Polyurethane foam coating over engineered DURACoil® liner reinforced with HPPE

BENEFITS

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



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
- o Increased dexterity
- Machine washable



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

FEATURES

Liner: HPPE reinforced, Engineered

DURACoil

Coating: Polyurethane

Elasticated wrist cuff

Grip: Foam

+ Ergonomic, Foam polyurethane palm dip

APPLICATIONS

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

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



FEATURES

Liner: HPPE reinforced, Engineered

DURACoil

Coating: Polyurethane

Elasticated wrist cuff

Grip: Foam

+ Ergonomic, Foam polyurethane palm dip

APPLICATIONS

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

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

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



FEATURES

Liner: HPPE reinforced, Engineered

DURACoil

Coating: Uncoated **Elasticated wrist cuff**

+ Ergonomic

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

REF	SIZE	LENGTH
546X	6/S	220 - 250mm
546X	7/M	220 - 250mm
546X	8/L	220 - 250mm
546X	9/XL	220 - 250mm





DURACoil®

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 reinforced, Engineered DURACoil

Coating: Embossed microporous nitrile, Palm-dipped natural rubber

+ Ergonomic, Optimal liner design

APPLICATIONS

- $\,^{\circ}$ Repair glass and windows
- Steel fixing
- Handling glass and windows
- Plate glass production
- Window manufacturing

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



SHOWA

DURACoil® 386

Microporous nitrile coating over engineered DURACoil® liner reinforced with HPPE

BENEFITS

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

FEATURES

Liner: HPPE reinforced, Engineered DURACoil

Coating: Embossed microporous nitrile, Palm-dipped natural rubber

+ Ergonomic, Optimal liner design

APPLICATIONS

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

REF	SIZE	LENGTH
386	6/S	220 - 270mm
386	7/M	220 - 270mm
386	8/L	220 - 270mm
386	9/XL	220 - 270mm
386	10/XXL	220 - 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.





Don't compromise on flexibility when seeking high durable cut-resistant gloves. Both models produced with our DURACoil technology.



576

Foamed nitrile on 3/4 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: Engineered DURACoil, HPPE reinforced

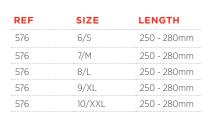
Coating: 3/4 nitrile,

Elasticated wrist cuff

+ Ergonomic, Foam nitrile palm dip

APPLICATIONS

- Light assembly
- Mechanical and engineering
- $^{\circ}$ Handling glass and windows
- Canning
- Mounting and dismantling





SHOWA

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
- o Machine washable

FEATURES

Liner: HPPE reinforced, Engineered DURACoil liner

Coating: Fully-coated nitrile, Elasticated wrist cuff

+ Ergonomic, Foam nitrile palm dip

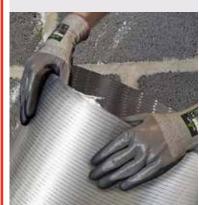
APPLICATIONS

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

REF	SIZE	LENGTH
577	6/S	220 - 270mm
577	7/M	220 - 270mm
577	8/L	220 - 270mm
577	9/XL	220 - 270mm
577	10/XXL	220 - 270mm



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





The 576 is ³/₄ nitrile coated allowing breathability compared to the 577 which is fully coated for full protection.



GP-KV1

Natural rubber coating on palm over Kevlar® liner



SHOWA

GP-KV2R

Nitrile coating on palm over Keylar® liner

BENEFITS

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

BENEFITS

- o Durable
- Breathable
- Increased Tactility
- Easy Movement



Whilst the GP-KV1 is made with a palm-dipped natural rubber coating, and 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.

FEATURES

Liner: Kevlar®

Coating: Palm-dipped natural rubber

Grip: Rough

Low thermal conductivity

+ Elasticated wrist cuff

APPLICATIONS

- $\,{}^{_{\odot}}$ Handling heavy equipment
- o Bottling
- Handling glass and windows
- $\circ \ Canning$
- Police & defense

FEATURES

Liner: Kevlar®

Coating: Nitrile coating on palm

Grip: Rough

+ Seamless knit, Elasticated wrist cuff, Anti-odor

- $\,{}^{\circ}$ Handling heavy equipment
- \circ Bottling
- $\,{}^{_{\odot}}$ Handling glass and windows
- Canning
- Police & defense

REF	SIZE	LENGTH
GP-KV1	7/S	230 - 270mm
GP-KV1	8/M	230 - 270mm
GP-KV1	9/L	230 - 270mm
GP-KV1	10/XL	230 - 270mm

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









4561

Sponge nitrile palm coating over engineered liner with Kevlar®

BENEFITS

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

FEATURES

Liner: Kevlar®

Coating: Foam nitrile palm dip

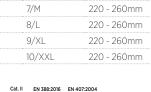
Grip: Foam

+ Ergonomic, Elasticated wrist cuff

APPLICATIONS

- Automotive repairs and maintenance
- Light assembly
- Assembly dry parts
- o Bottling
- $\,^{\circ}$ Handling glass and windows
- White goods
- · HVAC

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







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



SHOWA

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

BENEFITS

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

FEATURES

Liner: HPPE reinforced Coating: Spandex,

+ Ergonomic, Foam nitrile palm dip

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	240 - 290mm
234	7/M	240 - 290mm
234	8/L	240 - 290mm
234	9/XL	240 - 290mm
234	10/XXL	240 - 290mm



SHOWA

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

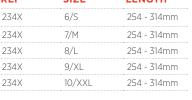
Liner: HPPE reinforced Coating: Spandex,

+ Ergonomic, Foam nitrile palm dip

APPLICATIONS

- Beverage
- Food packing and handling
- Food Service/Food Prep
- Poultry, meat & seafood processing
- Canning

KEF	SIZE	LENGIH
234X	6/S	254 - 314mm
234X	7/M	254 - 314mm
234X	8/L	254 - 314mm
234X	9/XL	254 - 314mm
234X	10/XXL	254 - 314mm





The SHOWA 234 has a foam nitrile coating perfect





234 is level 1 CONTACT heat certified 234X is level 1 CONTACT heat certified













ΓΕΧ

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



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



Abrasion-resistant

FEATURES

Liner: Hagane Coil® Coating: Polyurethane Grip: Rough

+ Ergonomic, Hagane Coil® technology

APPLICATIONS

- Handling heavy equipment
- Mechanical and engineering
- Screw and nail setting
- o Intricate parts handling
- Handling glass and windows
- · Canning
- \circ HVAC



SHOWA

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

BENEFITS

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

FEATURES

Grip: Rough

Liner: Hagane Coil®

Coating: Palm-dipped natural rubber

+ Ergonomic, Hagane Coil® technology,



SHOWA

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: Hagane Coil®

Coating: Palm-dipped natural rubber Grip: Rough

+ Ergonomic, Hagane Coil® technology, **Fluorescent**

APPLICATIONS

Fluorescent

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

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

REF	SIZE	LENGTH
S-TEX 541	6/S	220 - 270mm
S-TEX 541	7/M	220 - 270mm
S-TEX 541	8/L	220 - 270mm
S-TEX 541	9/XL	220 - 270mm
S-TEX 541	10/XXL	220 - 270mm

	J	
S-TEX 541	6/S	220 - 270mm
S-TEX 541	7/M	220 - 270mm
S-TEX 541	8/L	220 - 270mm
S-TEX 541	9/XL	220 - 270mm
S-TEX 541	10/XXL	220 - 270mm



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

Cat. II	EN 388:201
ϵ	
	2X43D

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



SHOWA

STEX

Dual nitrile coating technology, 3/4 nitrile dipped with extra nitrile foam coating on palm over Hagane Coil® liner (stainless steel/polyester)

BENEFITS

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

FEATURES

Grip: Rough

Liner: Hagane Coil®

Coating: 3/4 nitrile dipped

with extra foam nitrile on palm



SHOWA

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: Hagane Coil®

Coating: Fully coated, with an extra foamed nitrile finish on palm

Grip: Foam

+ Ergonomic, Elasticated wrist cuff

APPLICATIONS

+ Ergonomic, Hagane

Coil® technology

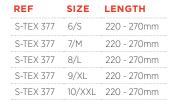
- Light assembly
- Steel fabrication
- Steel fixing
- Handling heavy equipment
- Handling glass and windows
- Canning
- Bottling
- · HVAC

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 376	6/S	220 - 270mm
S-TEX 376	7/M	220 - 270mm
S-TEX 376	8/L	220 - 270mm
S-TEX 376	9/XL	220 - 270mm
S-TEX 376	10/XXL	220 - 270mm









SHOWA

S-TEX

Dual nitrile coating technology, 34 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: Hagane Coil®

Coating: Foam nitrile palm dip

Grip: Foam

+ Ergonomic, Hagane Coil® technology, Reinforced safety cuff

APPLICATIONS

- · Mechanical and engineering
- o Drainage, piping
- ∘ HVAC
- Window manufacturing

FEATURES

SHOWA

S-TEX

Double-dipped, fully coated

foam coating on palm over

Hagane Coil® liner (stainless

steel/polyester), and PVC/

nitrile with extra nitrile

polyester safety cuff

BENEFITS

Cut-resistant

Form-fitting

Abrasion-resistant

Increased dexterity

Forearm protection

Water-resistant

Seamless knit

Liner: Hagane Coil®

Coating: Foam nitrile palm dip,

fully-coated nitrile

Grip: Foam

+ Hagane Coil® technology, Reinforced safety cuff

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

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

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







SHOWA STEX 581

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



SHOWA

Full neoprene coating over engineered cut protective liner



SHOWA

Uncoated HPPE yarn

BENEFITS

- Cut-resistant
- o Extra Grip
- Abrasion-resistant
- Breathable
- Easy Movement
- Seamless knit
- Reusable
- Form-fitting

BENEFITS

- Cut-resistant
- · Seamless knit
- Acid-resistant
- Flexible
- o Extra Grip
- Increased dexterity

BENEFITS

- o Machine washable
- · Cut-resistant
- Increased dexterity
- Breathable
- Form-fitting

FEATURES

Liner: Hagane Coil®, Kevlar® Coating: Microporous Nitrile Coating Grip: Embossed

Automotive repairs and maintenance

+ Ergonomic

Maintenance

HVAC

Steel fixing

S-TEX 581

S-TEX 581

S-TEX 581

S-TEX 581

S-TEX 581

REF

· Light assembly

APPLICATIONS

Mechanical and engineering

Handling glass and windows

SIZE

6/5

o Install electrical wiring

Screw and nail setting

FEATURES

Liner: Cut-resistance Coating: Fully-coated neoprene Grip: Rough

+ Strong chemical resistance

- · Chemical spray and treatment
- Coating preparation
- Handling glass and windows
- Window manufacturing
- Handling heavy equipment
- o Drilling

FEATURES

Liner: HPPE reinforced Seamless knit

Coating: Uncoated

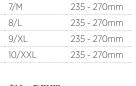
APPLICATIONS

- o Deck crew

APPLICATIONS

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

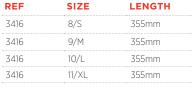
REF	SIZE	LENGTH
3416	8/S	355mm
3416	9/M	355mm
3416	10/L	355mm
3416	11/XL	355mm



LENGTH

235 - 270mm





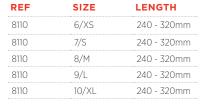
















SHOWA

Uncoated HPPE yarn



SHOWA

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



SHOWA

Spandex liner reinforced with stainless steel and aramid



SHOWA

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

BENEFITS

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

BENEFITS

- o Cut-resistant
- Increased dexterity
- · Lightweight
- Breathable
- Machine washable
- Form-fitting
- · Abrasion-resistant
- Touch screen compatible

BENEFITS

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

BENEFITS

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

FEATURES

Liner: Wire-free liner, **HPPE** reinforced Coating: Uncoated

FEATURES

Liner: Spandex, Aramid knit Coating: Foam nitrile palm dip Grip: Foam

FEATURES

Liner: Spandex, Aramid knit

APPLICATIONS

- o Poultry, meat &
- Handling glass and windows

- Food packing and handling
- seafood processing
- Window manufacturing
- Canning
- Bottling
- · HVAC

REF SIZE **LENGTH** 8127 6/XS 240 - 320mm 8127 7/S 240 - 320mm 8127 8/M 240 - 320mm 8127 9/L 240 - 320mm 240 - 320mm 8127 10/XL

APPLICATIONS

- Automotive repairs and maintenance
- Mechanical and engineering
- Metal Stamping

REF

257

257

257

257

- Handling glass and windows

- · Component Assembly

SIZE

6/S

7/M

8/L

9/XL

10/XXL

- Plate glass production
- Window manufacturing

Coating: Uncoated

APPLICATIONS

- Automotive repairs and

- Plate glass production
- Component Assembly

9/XL

10/XXL

- maintenance
- Mechanical and engineering
- Metal Stamping
- Handling glass and windows
- Window manufacturing

REF	SIZE	LENGTH
257	6/S	241 - 279mm
257	7/M	241 - 279mm
257	8/I	2/11 - 279mm

241 - 279mm

241 - 279mm

FEATURES

Liner: Kevlar® Coating: Palm-dipped 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	240 - 275mm
S-TEX KV3	8/M	240 - 275mm
S-TEX KV3	9/L	240 - 275mm
S-TEX KV3	10/XL	240 - 275mm







LENGTH

241 - 279mm

257





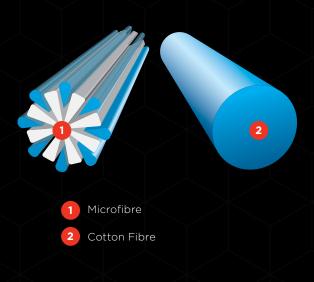


GENERAL PURPOSE

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.



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, water repellency, electrostatics and 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.







P.55



P.54

TAKE COMFORT AND PROTECTION TO THE **NEXT LEVEL**

Professionals need optimized 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.



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.



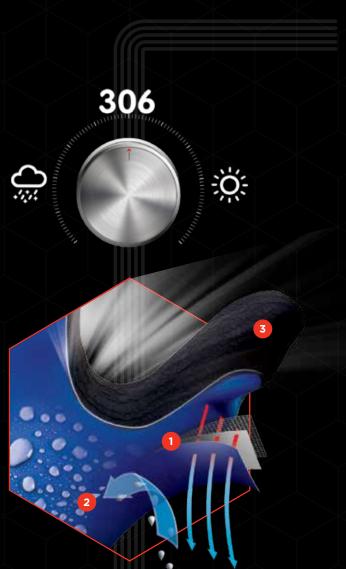
BREATHEX FOAM TECHNOLOGY®

THE ULTIMATE OUTDOOR CAMPANION

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?

- 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
- Extra natural rubber coating on palm and fingers provides excellent grip and dexterity.

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.



2 Impermeability protects from

HOW DOES IT WORK?

ONE SOLUTION FOR ALL PURPOSES,

Aerated natural rubber foam for breathability and reduced perspiration

WHATEVER THE OUTDOOR CONDITIONS ARE:

liquid penetration

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-repellence 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



ASSEMBLY ASSEMBLY





AGRICULTURE



REFRIGERATION



WAREHOUSING & DISTRIBUTION



DIY

SHOWA 306 (P.59) GENERAL PURPOSE

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

SHOWA 406 (P.72) COLD PROTECTION

- Fluorescent
- Insulated
- Rough grip





GENERAL PURPOSE | INSULATED



265R

Palm nitrile coating over nylon liner



370B

Palm nitrile coating over black nylon liner



370W

Palm nitrile coating over white nylon liner

BENEFITS

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

BENEFITS

- Flexible
- Form-fitting
- Extra Grip
- Increased dexterity
- o Seamless knit
- Machine washable

BENEFITS

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

FEATURES

Liner: 10 gauge seamless knit nylon Coating: Foam nitrile palm

Grip: Rough

FEATURES

Liner: **Black Nylon** Coating: **Nitrile palm**

Grip: Rough

FEATURES

Liner: Nylon

Coating: Nitrile palm

Grip: Rough

APPLICATIONS

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

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

APPLICATIONS

- Handling plants and vegetables
- Automotive repairs and maintenance
- Maintenance
- o Intricate parts handling
- · Light assembly
- Planting & repotting
- Harvesting
- Component Assembly
- · Shipping/Receiving

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

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

REF	SIZE	LENGTH
370W	5/XS	210 - 260mm
370W	6/S	210 - 260mm
370W	7/M	210 - 260mm
370W	8/L	210 - 260mm
370W	9/XL	210 - 260mm
370W	10/XXL	210 - 260mm









SHOWA 376R

1/2 dipped nitrile with extra foam nitrile coating on palm over polyester/nylon liner

BENEFITS

- Seamless knit
- Flexible
- Extra Grip
- Breathable



SHOWA

3/4 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
- o Durable



SHOWA

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

BENEFITS

- Flexible
- Form-fitting
- Breathable
- Seamless knit

FEATURES

Liner: 13 gauge seamless knit Polyester/Nylon

Coating: 1/2 nitrile dipped with extra

foam nitrile on palm Grip: Foam

+ Scalloped edge, Elasticated wrist cuff

Liner: 13 gauge seamless knit Polyester/Nylon

Coating: Foam nitrile palm coating

3/4 nitrile dipped Grip: Sponge

+ Ergonomic, Fluorescent

APPLICATIONS

- Mechanical and engineering
- Automotive repairs and maintenance

SIZE

6/S

7/M

8/L

9/XL

10/XXI

LENGTH

220 - 270mm

220 - 270mm

220 - 270mm

220 - 270mm 220 - 270mm

· Light assembly

REF

376R

376R

376R

376R

376R

FEATURES

APPLICATIONS

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

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

FEATURES

Liner: 13 gauge seamless knit

Polyester/Nylon

Coating: 3/4 nitrile dipped

Grip: Foam

+ Elasticated wrist cuff

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

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









350R

Palm nitrile coating over polyester/cotton liner



- Increased dexterity
- Flexible
- o Extra Grip
- Seamless knit
- Lightweight



38C

Microporous nitrile coating on palm over nylon liner

BENEFITS

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



SHOWA

382

Microporous nitrile coating over engineered microfibre liner

BENEFITS

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

FEATURES

Liner: 10 gauge seamless knit

Polyester/Cotton

Coating: Nitrile palm

Grip: Rough

APPLICATIONS

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

FEATURES

Liner: 13 gauge seamless knit

Polyester/Nylon

Coating: Foam nitrile palm dip

Grip: Embossed

APPLICATIONS

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

FEATURES

Liner: 13 gauge seamless knit

Microfibre

Coating: Microporous nitrile

Grip: Embossed

- Automotive repairs and maintenance
- Intricate parts handling
- $\,^{\circ}$ Light assembly
- Mechanical and engineering

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

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

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







Microporous nitrile coating over engineered microfibre liner

BENEFITS

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

FEATURES

Liner: 13 gauge seamless knit engineered Microfibre

Coating: Microporous nitrile

Grip: Embossed

- 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	220 - 270mm
381	7/M	220 - 270mm
381	8/L	220 - 270mm
381	9/XL	220 - 270mm
381	10/XXL	220 - 270mm





NITRILE





SHOWA

4400

Nitrile coating over cotton jersey liner



SHOWA

4400Y

3/4 nitrile coating over cotton jersey liner



SHOWA

7000

Full nitrile coating over cotton jersey liner with knit wrist

BENEFITS

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

BENEFITS

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

BENEFITS

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

FEATURES

Liner: Cotton Jersey
Coating: Nitrile
Grip: Smooth

FEATURES

Liner: Cotton Jersey Coating: 3/4 Nitrile Grip: Smooth

FEATURES

Liner: Cotton Jersey

Coating: Fully-coated nitrile

Grip: Smooth

APPLICATIONS

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

APPLICATIONS

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

APPLICATIONS

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

REF	SIZE	LENGIH
4400	7/S	220 - 260mm
4400	8/M	220 - 260mm
4400	9/L	220 - 260mm
4400	10/XL	220 - 260mm

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

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







SHOWA INDUSTRIAL SERIES



3/4 nitrile coating over cotton jersey liner with reinforced safety cuff



SHOWA

7166

Nitrile coating over cotton jersey liner with reinforced safety cuff



SHOWA

7199NC

Full nitrile coating with smooth surface for increased durability

BENEFITS

- · Abrasion-resistant
- Flexible
- o Oil-resistant
- Breathable
- o Impermeable

BENEFITS

- · Abrasion-resistant
- Flexible
- Impermeable

BENEFITS

- Abrasion-resistant
- Oil-resistant
- Flexible

FEATURES

Liner: Cotton Jersey

FEATURES

Liner: Cotton Jersey Coating: Nitrile Grip: Smooth

Coating: 3/4 nitrile palm Grip: Smooth

+ Reinforced safety cuff

APPLICATIONS

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

APPLICATIONS

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

FEATURES

Liner: Cotton Jersey

Coating: Fully-coated nitrile

Grip: Smooth

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

REF	SIZE	LENGTH
7066	8/S	240 - 260mm
7066	9/M	240 - 260mm
7066	10/L	240 - 260mm

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

REF	SIZE	LENGTH
7199NCR	10/L	260mm









310 O

Natural rubber palm coating over polyester/cotton liner

BENEFITS

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

FEATURES

Liner: 10 gauge seamless knit Polyester/Cotton

Coating: **Palm-dipped natural rubber** Grip: **Rough**

+ Ergonomic, Elasticated wrist cuff

APPLICATIONS

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

REF	SIZE	LENGTH
310 O	7/S	220 - 270mm
310 O	8/M	220 - 270mm
310 O	9/L	220 - 270mm
310 O	10/XL	220 - 270mm





SHOWA

310 G

Natural rubber palm coating over polyester/cotton liner

BENEFITS

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

Seattless Kil

FEATURES

Liner: 10 gauge seamless knit Polyester/Cotton

Coating: **Palm-dipped natural rubber** Grip: **Rough**

+ Ergonomic, Elasticated wrist cuff

APPLICATIONS

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

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





310 P

Natural rubber palm coating over polyester/cotton liner

BENEFITS

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

FEATURES

Liner: 10 gauge seamless knit Polyester/Cotton

Coating: Palm-dipped natural rubber

Grip: Rough

+ Ergonomic, Elasticated wrist cuff

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

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





306

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

BENEFITS

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

FEATURES

Liner: 13 gauge seamless knit Nylon/Polyester

Coating: Dual natural rubber coating, Aerated natural rubber foam coating

+ Ergonomic, Elasticated wrist cuff

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

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



NATURAL RUBBER



305

3/4 Natural rubber coating over polyester/cotton liner



SHOWA

317

Natural rubber palm coating over polyester liner



SHOWA

330

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

BENEFITS

- Extra Grip
- Form-fitting
- Increased dexterity

BENEFITS

- o Seamless knit
- Form-fitting
- Extra Grip
- Breathable
- Increased visibility

BENEFITS

- Abrasion-resistant
- o Extra Grip
- Breathable
- Seamless knit
- Skin-friendly

FEATURES

Liner: 10 gauge seamless knit

Polyester/Cotton

Coating: Natural rubber

Grip: Rough

+ Knuckle coating, Elasticated wrist cuff

FEATURES

Liner: 10 gauge seamless knit Polyester

Coating: Natural rubber

Grip: Rough

+ Ergonomic, Elasticated wrist cuff, Fluorescent

FEATURES

Liner: 10 gauge seamless knit

Polyester/Cotton

Coating: Natural rubber

Grip: Rough

+ Ergonomic, Elasticated wrist cuff

APPLICATIONS

- Construction
- $\circ \ Labouring \\$
- Public sector
- Gardening

APPLICATIONS

- Handling heavy equipment
- Signalers
- Maintenance
- Slingers & signalers
- Shipping/Receiving

- · Handling heavy equipment
- Automotive repairs and maintenance
- Maintenance
- Plastics Injection & Moulding
- Scaffolding installation
- Shipping/Receiving

REF	SIZE	LENGTH
305	7/S	220 - 260mm
305	8/M	220 - 260mm
305	9/L	220 - 260mm
305	10/XL	220 - 260mm

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

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









341G

Natural rubber palm coating over grey nylon/polyester liner



showa
341R

Natural rubber palm coating over red nylon/polyester liner



341P

Natural rubber palm coating over purple nylon/polyester liner

BENEFITS

- o Extra Grip
- o Seamless knit
- Increased dexterity
- Breathable
- Flexible
- Form-fitting
- · Skin-friendly

BENEFITS

- Extra Grip
- Seamless knit
- Increased dexterity
- Breathable
- Flexible
- Form-fitting
- · Skin-friendly

BENEFITS

- Extra Grip
- Seamless knit
- Increased dexterity
- Breathable
- Flexible
- Form-fitting
- · Skin-friendly

FEATURES

Liner: 13 gauge seamless knit Nylon/Polyester

Coating: Natural rubber palm

Grip: Rough

+ Ergonomic, Elasticated wrist cuff

FEATURES

Liner: 13 gauge seamless knit

Nylon/Polyester

Coating: Natural rubber palm

Grip: Rough

+ Ergonomic, Elasticated wrist cuff

FEATURES

Liner: 13 gauge seamless knit

Nylon/Polyester

Coating: Natural rubber palm

Grip: Rough

+ Ergonomic, Elasticated wrist cuff

APPLICATIONS

- Decoration
- Drainage, piping
- $\,{}^{_{\odot}}$ Flashings and seals
- Guttering and drain pipe
- Install electrical wiring
- Insulation
- Roofing application membranes

APPLICATIONS

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

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

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

REF	SIZE	LENGTH
341R	6/S	210 - 260mm
341R	7/M	210 - 260mm
341R	8/L	210 - 260mm
341R	9/XL	210 - 260mm

REF	SIZE	LENGTH
341P	6/S	210 - 260mm
341P	7/M	210 - 260mm
341P	8/L	210 - 260mm
341P	9/XL	210 - 260mm









SHOWA 160R

Unsupported PVC glove coating over viscose flocked liner

BENEFITS

- · Lightweight
- Chemical-resistant
- Flexible
- · Easy donning and doffing
- Forearm protection
- Impermeable
- Water-resistant

FEATURES

Liner: Viscose flocked Coating: PVC Thickness: 0,60mm

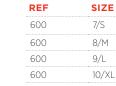
Grip: Embossed

APPLICATIONS

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

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







SHOWA

Full PVC coating, extra PVC coating on the entire hand 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 & repotting
- Harvesting
- Public utility

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Temres

Fully breathable micro-ventilated polyurethane coating with microroughened 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/Nitrile

Grip: Rough

+ Ergonomic, Waterproof TEMRES® Technology

APPLICATIONS

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

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









LENGTH

230 - 265mm 230 - 265mm

230 - 265mm

230 - 265mm







SHOWA B0500B

Polyurethane palm coating over black nylon liner



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



SHOWA B0500W

Polyurethane palm coating over white nylon liner

BENEFITS

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



SHOWA

B0502W

Polyurethane palm coating over white nylon/polyester liner

BENEFITS

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

FEATURES

Liner: 13 gauge seamless Knit Nylon

Coating: Polyurethane

Grip: Smooth

+ Elasticated wrist cuff

FEATURES

Liner: 13 gauge seamless Knit Nylon

Coating: Polyurethane

Grip: Smooth

+ Elasticated wrist cuff

FEATURES

Liner: 13 gauge seamless Knit

Nylon/Polyester

Coating: Polyurethane

Grip: Smooth

+ Ergonomic

APPLICATIONS

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

- o Intricate parts handling
- Mechanical and engineering
- Automotive repairs and maintenance
- · Cleanrooms
- Integrated circuits
- Component Assembly

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

- · Cleanrooms
- Integrated circuits
- Component Assembly
- Mounting and dismantling

REF	SIZE	LENGIH
B0500B	6/S	210 - 265mm
B0500B	7/M	210 - 265mm
B0500B	8/L	210 - 265mm
B0500B	9/XL	210 - 265mm
B0500B	10/XXL	210 - 265mm

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

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

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REF	SIZE	LENGTH
B0502W	6/S	210 - 265mm
B0502W	7/M	210 - 265mm
B0502W	8/L	210 - 265mm
B0502W	9/XL	210 - 265mm
B0502W	10/XXL	210 - 265mm





B0600

Polyurethane fingertips coating over nylon liner

BENEFITS

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



SHOWA

B0605

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

BENEFITS

- Seamless knit
- Flexible
- Form-fitting



SHOWA

B0610

Uncoated nylon liner

BENEFITS

- Seamless knit
- Flexible
- Form-fitting

FEATURES

Liner: Seamless Knit Nylon Coating: Polyurethane Grip: Smooth

+ Elasticated wrist cuff

FEATURES

Liner: **Seamless Knit Nylon** Coating: **Polyurethane**

+ Elasticated wrist cuff

FEATURES

Liner: **Seamless Knit Nylon**Coating: **Uncoated**

+ Elasticated wrist cuff

APPLICATIONS

- $^{\circ}$ Mechanical and engineering
- $\,^{\circ}$ Automotive repairs and maintenance
- Intricate parts handling
- Integrated circuits
- $\circ \ Semiconductors$
- · Cleanrooms

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

APPLICATIONS

- Mechanical and engineering
- Automotive repairs and maintenance
- Integrated circuits
- o Intricate parts handling
- Microelectronic
- $\circ \ \mathsf{Semiconductors}$
- Cleanrooms Quality control
- REF SIZE LENGTH B0605 6/S 235 - 295mm B0605 7/M 235 - 295mm B0605 8/L 235 - 295mm B0605 9/XL 235 - 295mm B0605 10/XXL 235 - 295mm

- Planting & repotting
- $\,^{\circ}$ Handling plants and vegetables
- Wood cutting
- Public utility

KEF	SIZE	LENGIA
B0610	6/S	170 - 210mm
B0610	7/M	170 - 210mm
B0610	8/L	170 - 210mm
B0610	9/XL	170 - 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 industrialized countries.

37,45 M€



3 841€



AVERAGE COST OF LOST-TIME ACCIDENTS (INCLUDING WORK-RELATED ILL HEALTH)

(source: Carsat, France)

37 297€



AVERAGE COST OF OCCUPATIONAL ACCIDENTS CAUSING PERMANENT DISABILITY (INCLUDING WORK-RELATED ILL HEALTH)

(source: Carsat, France)

- Building trade Transport, water, gas, electricity, press, communications Metallurgy
- Wood, paper, textiles, clothing Chemicals, rubber

| INSULATED | SINGLE

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

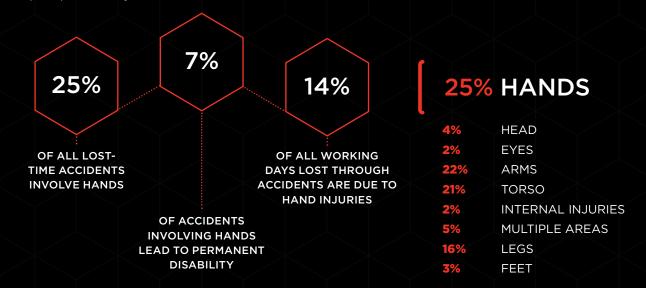
- Time off work and loss of earnings
- Drops in productivity

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.











		381	306	330	341	377
	Driving machines					
	Maintenance					
PUBLIC WORK	Slingers/signaler					
	Demolition					
	Steel fixing					
	Concreting					•
FOUNDATIONS /STRUCTURE	Steel erector					
/STRUCTURE	Shuttering	•	•			
	Pouring concrete					
	Mechanical and engineering					
SCAFFOLDER	Scaffolding installation			•		
	Laying brick		•	•		
MASON	Cementing					•
ill	Mortar					•
*	Guttering and drain pipe					
$\langle \times \times \times \rangle$	Roofing application membranes		•		•	
ROOFER &	Insulation		•		•	
ROOFER & CARPENTER	Flashings and seals		•		•	
	Internal fixing		•		•	
	Wood joinery		•		•	
GLASS AND	Fixing glass and windows					
GLAZING	Handling glass and windows					
	Plumbing	•			•	
PLUMBER - HEATER	Drainage, piping				•	
HEATER	Heating, ventilation	•				
	Installing electrical wiring/components				•	
ELECTRICIAN	Using test equipment				•	
	Installing trunking				•	
	Setting tile					
TILER	Grouting/cleaning off					
	Painting					
	Washing/cleaning					
	Sanding					•
PAINTER &	Setting screw and nail	•			•	
DECORATOR	Skirting placement				•	
/PLASTERER	Coating preparation	•				
	Plastering					•
	Decoration					

GENERAL HANDLING



	CHEM	IICAL	CUT PROTECTION			INSULATION	9	С	
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317	660	379	DURACoil® 546	S-TEX 376	S-TEX 581	477	6112PF	281	377IP
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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.

72. NATURAL RUBBER

72. PVC

74. NITRILE

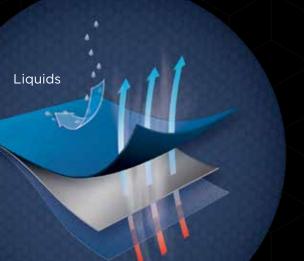
74. POLYURETHANE

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.

75. NEOPRENE

75. SPONGE NEOPRENE



Perspiration

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.

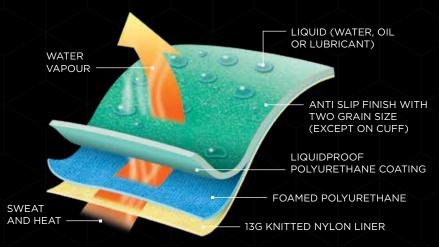
The idea behind TEMRES® came from a challenge faced by Japanese workers who wanted to keep their hands free from sweat while working in wet environments. For many workers in the Japanese fishing industry for example, it was difficult to keep dry hands while at the same time working in wet and oily conditions.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

As a specialist glove manufacturer 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 recognized 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

SHOWA INDUSTRIAL SERIES



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 μ m to 3,000 μ m. 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 μ m. 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.



281

P.62







SHOWA

TEMRES® **282**

WINTER VERSION P.74

COLD PROTECTION

NATURAL RUBBER





SHOWA

Natural rubber palm coating over acrylic/cotton/polyester liner

BENEFITS

- Thermal insulation
- Flexible
- Breathable
- o Extra Grip
- Seamless knit
- Skin-friendly
- · Abrasion-resistant



Liner: Seamless knit Acrylic/Cotton/Polyester

Coating: Natural Rubber Palm

Grip: Rough

+ Elasticated wrist cuff, Ergonomic

APPLICATIONS

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

REF	SIZE	LENGIH
451	7/S	220 - 270mm
451	8/M	220 - 270mm
451	9/L	220 - 270mm
451	10/XL	220 - 270mm



SHOWA

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: Seamless knit nylon/ **Insulated Acrylic, nylon** Coating: Dual natural rubber

Grip: Rough

+ Fluorescent

APPLICATIONS

- Brick laying
- Plumbing
- Washing and cleaning
- Pool /Pond Maintenance
- · Shipping/Receiving



SHOWA

Full PVC coating, extra coating on entire hand over cotton/ fixed acrylic liner

BENEFITS

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

FEATURES

Liner: Seamless knit fixed acrylic

lining/cotton knit Coating: PVC Thickness: 1,10mm Grip: Rough

+ Forearm protection

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

nm 406 7/M 250 - 295n	١m
nm 406 8/L 250 - 295n	١m
nm 406 9/XL 250 - 295n	١m
nm 406 10/XXL 250 - 295n	١m

RE	F	SIZE	LENGTH
460)	8/M	300mm
460)	9/L	300mm
460)	10/XL	300mm





























SHOWA

Removeable cotton /acrylic liner with full PVC coating



- Flexible
- Soft liner
- Durable
- · Chemical-resistant
- Cold Resistant
- Impermeable
- Forearm protection
- Seamless knit

FEATURES

Liner: Seamless cotton knit with removable acrylic liner

Coating: PVC Thickness: 1,10mm Grip: Rough

+ Insulated, Ergonomic

APPLICATIONS

- Maritime sector
- Petrochemical
- Transport
- Logistics
- Fishing



SHOWA

Full PVC coating, extra coating on entire hand over cotton/ fixed acrylic liner

BENEFITS

- Chemical-resistant
- o Oil-resistant
- Protects up to -20°C
- Flexible
- Thermal insulation
- Form-fitting
- Skin-friendly
- o Extra Grip

SHOWA

Full PVC coating, extra coating over entire hand on cotton/ removeable acrylic liner

BENEFITS

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

FEATURES

Liner: Seamless cotton knit fixed acrylic lining/cotton knit

Coating: PVC Grip: Rough

+ Insulated, Ergonomic, Forearm protection

APPLICATIONS

- Chemical spray and treatment
- Washing and cleaning

FEATURES

Liner: Seamless cotton knit with removable acrylic liner

Coating: PVC Grip: Rough

+ Insulated, Ergonomic, Forearm protection

- Chemical spray and treatment
- Washing and cleaning
- Transporting
- · Light Chemical Handling in Horticulture, Agriculture

REF	SIZE	LENGTH
465	8/M	300mm
465	9/L	300mm
465	10/XL	300mm

REF	SIZE	LENGTH
490	8/M	300mm
490	9/L	300mm
490	10/XL	300mm

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





























SHOWA INDUSTRIAL SERIES

COLD PROTECTION

NITRILE

SHOWA

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: Seamless knit polyester/Nylon/ **Insulated Acrylic**

Coating: Nitrile/Nitrile foam

Grip: Foam

+ Elasticated wrist cuff, Ergonomic

APPLICATIONS

- Concreting
- Guttering and drain pipe
- Insulation
- Washing and cleaning
- Planting & repotting
- Bottling
- Water/Sewage treatment
- · Plumbing
- o Drainage, piping
- Shipping/Receiving

REF	SIZE	LENGTH
477	6/S	210-250 mm
477	7/M	210-250 mm
477	8/L	210-250 mm
477	9/XL	210-250 mm



POLYURETHANE



SHOWA

Temres®

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: Seamless knit nylon/

Insulated Acrylic

Coating: Polyurethane

Grip: Rough

+ Ergonomic, Waterproof TEMRES® **Technology**

APPLICATIONS

- Handling plants and vegetables
- o Signalers
- Refrigeration
- Pool /Pond Maintenance
- Washing and cleaning
- Plumbing

REF	SIZE	LENGTH
282	8/M	275 - 300mm
282	9/L	275 - 300mm
282	10/XL	275 - 300mm
282	11/XXI	275 - 300mm



COLD PROTECTION

Insulated liner provides barrier from cold ensuring warmth and comfort all day long.



BREATHABLE

Breathable micro-ventilated TEMRES® technology: membrane fixed between coating and liner allows warm air and moisture from inside to escape to keep your hands dry.



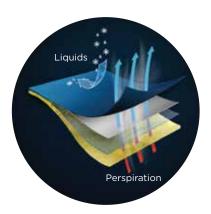
WATERPROOF

Waterproof technology provides a barrier against water and liquids in wet environments.



STRONG GRIP

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









HEAT PROTECTION

NEOPRENE



SHOWA

6781R

Full neoprene coating over cotton jersey liner



SHOWA

Full neoprene spray coating over non-woven liner

BENEFITS

- Burn protection
- Extra Grip
- Abrasion-resistant
- Soft liner
- o Chemical-resistant
- Cut-resistant
- Heat-resistant

BENEFITS

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

FEATURES

Liner: Cotton jersey

Coating: Fully-coated neoprene

Grip: Rough

+ Insulated

FEATURES

Liner: Non-woven

Coating: Neoprene sprayed

Grip: Rough

APPLICATIONS

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

- Automotive repairs and maintenance
- Mechanical and engineering
- Metal Stamping
- Bakeries & delicatessens
- Casting

REF	SIZE	LENGTH
6781R	10/L	305mm

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













SHOWA

Polyurethane palm coating over antistatic nylon/acrylic liner



SHOWA 40160

Polyurethane fingertips coating over antistatic nylon/acrylic liner



SHOWA AO150

Uncoated antistatic nylon/acrylic liner

BENEFITS

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

BENEFITS

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

BENEFITS

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

FEATURES

Liner: Acrylic nylon

Coating: Polyurethane palm coating

+ Elasticated wrist cuff

FEATURES

Liner: Acrylic nylon

Coating: Polyurethane fingertips

+ Elasticated wrist cuff

FEATURES

Liner: Acrylic nylon

Coating: Uncoated

+ Elasticated wrist cuff

APPLICATIONS

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

APPLICATIONS

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

APPLICATIONS

- Intricate parts handling
- Mechanical and engineering
- Semiconductors
- · Cleanrooms

REF

A0150

- Integrated circuits
- o Microelectronic

REF	SIZE	LENGTH
A0170	7/M	275 - 290mm
A0170	8/L	275 - 290mm
A0170	9/XL	275 - 290mm
A0170	10/XXI	275 - 290mm



REF	SIZE	LENGTH
A0160	6/S	215 - 250mm
A0160	7/M	215 - 250mm
A0160	8/L	215 - 250mm
A0160	9/XL	215 - 250mm

Cat. II EN 388:2016	EN 16350:2014		Cat. II EN 388:20	16
9/XL	215 - 250mm	A0150	9/XL	
8/L	215 - 250mm	A0150	8/L	
7/M	215 - 250mm	A0150	7/M	





SIZE

6/S

LENGTH

200 - 245mm

200 - 245mm 200 - 245mm 200 - 245mm

SHOWA INDUSTRIAL SERIES





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 7 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 & 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

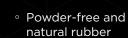




COMFORT & PERFORMANCES

- 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 fatigue
- Textured finish on fingertips to enhance grip





- 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



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



CHEMICAL | CUT | GENERAL PURPOSE | INSULATED | SINGLE USE

SINGLE USE NITRILE SERIES RANGE SUMMARY

					1		
	7500PF	7502PF	6110PF	මානුවද	7005PF	8005PF	CD120PF
THICKNESS (mm) LENGTH (mm)	0,10	0,10 240	0,10 240	0,10 240	0,10 240	240	0,10 240
SIZES	XS- XXL	s-XXL	XS-XL	s-XXL	s-XXL	XS-XL	XS- XXL
CE CATEGORY		ııı			III		III
EN 388	1000X	1000X		2001X	2001X		
EN ISO 374-5	٠	•	•	•	•	٠	•
EN ISO 374-1	•		·	JKL	JKL	KPT	JKPT
FOOD APPROVED (EC No. 1935/2004)	•	٠	•	•	•	•	•
SILICONE FREE	·	·	•	·	·	•	
ACCELERATOR FREE						•	
ULTIMATE TENSILE STRENGTH (MPa)	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 20
ELONGATION AT BREAK (%) MIN.	500	500	500	500	500	500	550
FORCE AT BREAK (N)	≥ 6 N	≥ 6 N	≥ 6 N	≥ 6 N	≥ 6 N	≥ 6 N	≥ 6 N
GLOVES PER DISPENSER	100	100	50	50	50	100	100
DISPENSERS PER CARTON	20	20	20	20	20	20	10
AQL	1.0	1.5	1.5	1.5	1.5	1.5	1.5









7500PF

Single-use nitrile glove with EBT® technology, powder-free

BENEFITS

- Disposable
- Biodegradable
- Flexible
- Natural rubber free
- Increased dexterity

FEATURES

Liner: Unlined Coating: Nitrile Thickness: 0,10mm **Grip: Textured Finish**

+ Ergonomic, Eco Best Technology® (EBT), Rolled Cuff

APPLICATIONS

- Intricate parts handling
- Biotechnology
- Pet Food production
- Washing and cleaning
- · Laboratory, pharma & analysis

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

















SHOWA

7502PF

Biodegradable nitrile with EBT® technology, natural rubber and accelerator-free

BENEFITS

- Disposable
- Biodegradable
- · Chemical-resistant
- Natural rubber free

FEATURES

Liner: Unlined Coating: Nitrile Thickness: 0,06mm **Grip: Textured Finish**

+ Ergonomic, 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	6/XS	240mm
7502PF	7/S	240mm
7502PF	8/M	240mm
7502PF	9/L	240mm
7502PF	10/XL	240mm
7502PF	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 SHOW 7502PF which is 0.06mm thick ideal for the food industry.









6110PF

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

BENEFITS

- Biodegradable
- Form-fitting
- Disposable
- Smooth Grip
- Natural rubber free
- Water-resistant

FEATURES

Liner: Unlined Coating: Nitrile

Thickness: 0,10mm

Grip: Textured fingertips

+ Ergonomic, Eco Best Technology® (EBT), Rolled Cuff

APPLICATIONS

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

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

















SHOWA

6112PF

Single-use, biodegradable glove with EBT® technology prioritising sensitivity and dexterity

BENEFITS

- · Biodegradable
- Form-fitting
- Disposable
- Smooth Grip
- Natural rubber free
- Water-resistant

FEATURES

Liner: Unlined

Coating: Nitrile

Thickness: 0,10mm

Grip: Textured fingertips

+ Ergonomic, Eco Best Technology® (EBT), Rolled Cuff

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

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









BIODEGRADABLE EBT



EB T





SHOWA

7005PF

Powder free and natural rubber free, the 7005PF has SHOWA's revolutionary EBT® technology

BENEFITS

- Disposable
- Biodegradable
- Natural rubber free
- Increased dexterity
- Flexible

FEATURES

Liner: Unlined Coating: Nitrile Thickness: 0,10mm Grip: Textured

+ Eco Best Technology* (EBT), Rolled Cuff

APPLICATIONS

- Laboratory
- Biotechnology
- o Intricate parts handling
- Washing and cleaning
- Painting & spray workshops

REF	SIZE	LENGTH
7500PF	6/XS	240mm
7500PF	7/S	240mm
7500PF	8/M	240mm
7500PF	9/L	240mm
7500PF	10/XL	240mm
7500PF	11/XL	240mm
7500PF	12/XXL	240mm







SHOWA INDUSTRIAL SERIES

INSULATED





SHOWA

8005PF

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

BENEFITS

- Easy donning and doffing
- Natural rubber free
- Increased dexterity
- Single-use

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 & spray workshops
- Food packing and handling
- Food Service/Food Prep
- Fruit & vegetable processing
- Pet Food production
- Poultry, meat & seafood processing
- Washing and cleaning
- Public utility
- Life sciences
- Cytostatics
- Biotechnology
- Pharmaceuticals and API

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









SHOWA

CD120PF

Single-use, Polychloroprene glove prioritising sensitivity and dexterity

BENEFITS

- o Flexible
- Increased sensitivity
- Chemical resistant

FEATURES

Liner: Unlined

Coating: **Polychloroprene** Thickness: **0,12mm** Grip: **Smooth**

- $^{\circ}$ Painting and spray workshops
- $\,{}^{\circ}$ Chemical spray treatments
- Coating preparation
- Assembly dry and oily parts
- · Wash and cleaning

REF	SIZE	LENGTH
CD120PF	6/XS	240mm



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 Directive 89/686/EEC



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.

EN ISO 21420:2020

Protective gloves - general requirements

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

EN ISO 374-1: 2016 +A1:2018 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





Transition period until 21st April 2023



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
А	≥30 min for at least 6 chemicals
В	≥30 min for at least 3 chemicals
С	≥10 min for at least 1 chemical







From 21/04/2018

LIST OF CHEMICALS:

Letter code	Chemical	CAS number	Class
А	Methanol	67-56-1	Primary alcohol
В	Acetone	67-64-1	Ketone
С	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
Н	Tetrahydrofurane	109-99-9	Heterocyclic ether
1	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
М	65% Nitric acid	7697-37-2	Inorganic mineral acid, oxidizing
N	99% Acetic acid	64-19-7	Organic acid
0	25% Ammonium hydroxide	1336-21-6	Organic base
Р	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





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.

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	Α	В	С	D	Е	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: 2011

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's against thermal risks (heat and/or fire)



Claims a limited flame spread level of performance flame protection protection is is claimed



Does not claim a limited flame spread level of performance (at least level 1), and no flame 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 "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 16530

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

RISKS RELATED TO FOOD CONTACT



It is applied to materials and articles that, at finished state, are 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.

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 (310mm) 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 natural rubber 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 minimize 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	Hand (mı	Glove (mm)	
further to EN 420	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.



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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).