INDUSTRIAL SERIES

5,500 EMPLOYEES WORLDWIDE

100+ RESEARCHERS

PRODUCTION FACILITIES ACROSS THE GLOBE

PATENTS **58** OWNED

100% integrated manufacturing

1 BRAND

unrivalled protection & innovation **65** YEARS

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PROTECT WHAT MATTERS

Hands provide 70% of man's total motor abilities.

Endowed with exceptional mobility and agility, the hand is a highly developed tool comprising 27 bones, several metres of blood vessels and thousands of nerve endings. Our skin is the first layer of protection and, efficient though it may be, it offers limited resistance to the cold or other dangers such as cuts and blows.

Always Innovating. Never Imitating.

Beginning with the world's first PVC and Single Use Nitrile gloves, we've always led the pack with better, safer ways for you to work with your hands.

We combine our technological expertise and mastery of design with an intimate understanding of our customers, their work and the protection they need to go above and beyond. This approach enables us to take protection to the next level with advancements like our cut-resistant **Hagane Coil**® and **S-TEX** range, which can withstand up to 40N force—unlike any other glove on the market. Our standard is the highest standard of performance and safety, providing you the ultimate defense, no matter what task awaits you.

Quality is woven into every fibre of our organization.

We have full control of our industrial ecosystem, enabling us to maintain consistent quality and achieve perfection at every level. We perform every possible resistance test in our labs to ensure that each glove is fit for work before packaging and delivery. All of our production sites around the world are ISO 9001 certified and embrace our relentless pursuit of excellence.

BETTER-PROTECTED USERS

It is a mistake to believe that for a glove to be good, it just needs to meet current standards and prevent whatever risk the user is facing. The reality is much more complicated than it appears.

Whatever the industry, working conditions or application, the glove needs to be as comfortable as possible. Comfort is paramount as, without this essential quality, the worker's safety would be considerably reduced.

Historically, a lot of construction workers would not wear gloves because it limited their dexterity and prevented them from doing their jobs correctly. Despite the risks, they found it more practical to work without protective gloves. Faced with this situation, manufacturers of personal protective equipment, especially SHOWA, have developed solutions that enable everyone to benefit from increased comfort and exemplary protection.

By developing ergonomic glove ranges that perfectly follow the shape of the hand and as the first company to develop seamless, coated gloves and certain high-performance fibres, SHOWA is a forerunner in numerous technological advancements. Providing a high level of protection against mechanical and chemical risks, SHOWA gloves always offer more comfort, flexibility and accuracy than any other brand.

[100%] Integrated Manufacturer Since 1951

By owning all of our manufacturing, design and inspection processes, we create our own machinery, yarns, coatings, polymers and hand formers. This unchallenged level of control fuels our innovation process, resulting in unreplicable products and technology that give us a significant advantage over our competition.

COMMITTED TO FAIR LABOUR

The Business Social Compliance Initiative (BSCI) is a business-driven initiative for companies committed to social responsibility in their supply chain, regardless of their size, sector or industry. BSCI offers companies one common Code of Conduct and a holistic system to foster better working conditions in global supply chains.
The BSCI Code of Conduct is based on the most important international labour standards protecting workers' rights. It sets out 11 core labour rights, which BSCI participants commit to implement and monitor with their business partners within their supply chains.
SHOWA is committed to improving working conditions, engaging with stakeholders and endorsing the BSCI Code of Conduct and Appendices. We believe that compliance with local regulations and core social standards defined by international organisations for labour and human rights is an opportunity for further improving the working conditions in our integrated supply chain.

SHOWA agrees to respect the following labour principles set out in the BSCI Code of Conduct.

BSCI Principles

THE RIGHTS OF FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING
Our enterprise respects the right of workers to form unions or other kinds of workers' associations and to engage in collective bargaining.

FAIR REMUNERATION
Our enterprise respects the right of workers to receive fair remuneration.

OCCUPATIONAL HEALTH AND SAFETY
Our enterprise ensures a healthy and safe working environment, assessing risks and taking all necessary measures to eliminate or reduce them.

SPECIAL PROTECTION FOR YOUNG WORKERS
Our enterprise provides special protection to any workers that are not yet adults.

NO BONDED LABOUR
Our enterprise does not engage in any form of forced servitude, trafficked or non-voluntary labour.

ETHICAL BUSINESS BEHAVIOUR
Our enterprise does not tolerate any acts of corruption, extortion, embezzlement or bribery.

NO DISCRIMINATION
Our enterprise provides equal opportunities and does not discriminate against workers.

DECENT WORKING HOURS
Our enterprise follows local laws/regulations regarding hours of work.

NO CHILD LABOUR
Our enterprise does not hire any worker below the legal minimum age.

NO PRECARIOUS EMPLOYMENT
Our enterprise hires workers on the basis of documented contracts according to the law.

PROTECTION OF THE ENVIRONMENT
Our enterprise takes the necessary measures to avoid environmental degradation.

Source: www.bsci-intl.org

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).

Source: www.echa.europa.eu

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

CE

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 420

General requirements and test methods

- Technical information*
- Glove markings
- Sizes
- Level of dexterity (1 to 5)
- Innocuousness of the glove

* Printed on the packaging or on the user instruction of SHOWA gloves. For further details, contact your distributor or visit the website **www.SHOWAgroup.com**

EN ISO 374-1: 2016

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

(replaces EN 374-3)

Resistance to chemical permeation

Transition period until 21st April 2023

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.

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

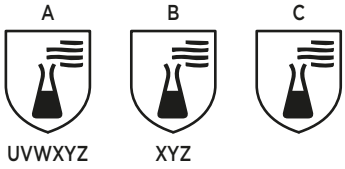
The standard defines a list of 18 chemicals. The minimum breakthrough time for a Type A glove is 30 mins (Level 2) for 6 chemicals, for a Type B it is 30 mins for at least 3 chemicals, and for Type C it is 10 mins (Level 1) for at least 1 chemical on the list.

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

ChemRest

See more at **ChemRest.com**

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.



From 21/04/2018

List of chemicals:

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

NEW CHEMICALS

EN ISO 374-5: 2016

Protection against micro-organisms

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 b c d e f

A) ABRASION RESISTANCE (0-4)

Number of cycles required to abrade a hole using abrasive paper in a circular sample of glove material under constant pressure and motion.

B) BLADE CUT RESISTANCE BY COUP TEST (0-5)

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

C) TEAR RESISTANCE (0-4)

Force required to propagate a tear in a rectangular sample of a glove with a starting incision, to a maximum force of 75N (approx. 7,6kg).

D) PUNCTURE RESISTANCE (0-4)

Force required to puncture the sample with a standard size steel point at a constant speed of 10 cm/min.

E) BLADE CUT RESISTANCE BY ISO TEST (A-F)

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

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

F) IMPACT RESISTANCE (P)

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

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

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

EN 511: 2011

Cold-related risks

a b c

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.

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

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

EN 407: 2011

Heat-related risks

a b c d e f

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

- Resistance to flammability (0 to 4)
- Resistance to contact heat (0 to 4)
- Resistance to convective heat (0 to 3)
- Resistance to radiant heat (0 to 4)
- Resistance to small splashes of molten metal (0 or 1)
- Resistance to large splashes of molten metal (0 or 1)

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

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

EN 1149-1
Antistatic properties

Tested level of glove surface resistivity. Measured in ohms/square (Ω), this indicates the capacity of the glove to disperse via a dissipative and/or conductive effect the accumulated static electricity discharges on the operator's hand.

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 DIRECTIVE 93/42/EEC
Covering medical examination and surgical gloves

EN 455-1
Freedom from holes

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

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

EN 455-2
Physical properties

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

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

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

EN 455-3
Biological evaluation

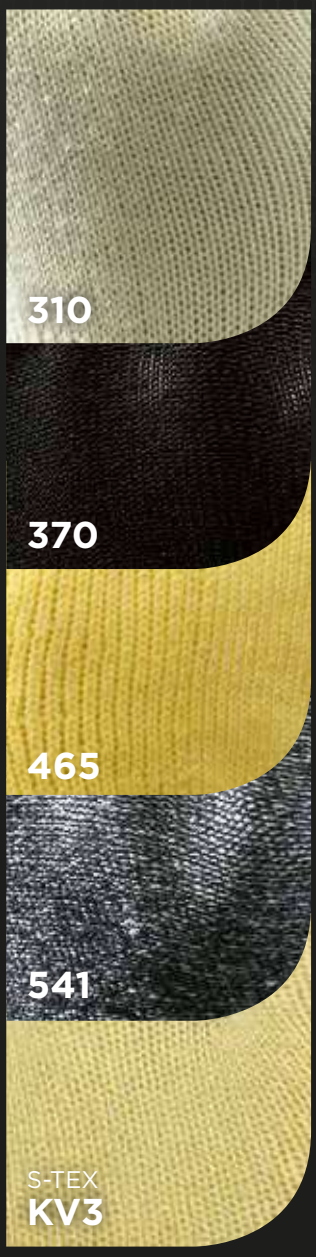
A number of important requirements are specified to maintain biological safety of the glove for the medical practitioner as well as the patient. "LATEX" pictogram on packaging for natural latex rubber gloves is mandatory. No terms suggesting relative safety of usage are permitted i.e. low allergenicity, 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 latex protein content in latex gloves must not exceed 50 microgram per gram of rubber to minimize latex 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.

MATERIALS and their PERFORMANCES

**SHOWA: 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!

	Description	Strengths	Weaknesses
NITRILE	Anti-slip vulcanised synthetic rubber	⊕ Excellent abrasion and cut resistance ⊕ Three times the puncture resistance of latex ⊕ Good mechanical performance ⊕ Excellent resistance to oil, grease and hydrocarbons ⊕ Good resistance to acids, certain organic solvents, pesticides, oils and fuels ⊕ No latex proteins ⊕ Heat resistance (but no flame resistance)	⊖ Relatively rigid ⊖ Normally low tear resistance ⊖ No chemical resistance against ketones and some chlorinated hydrocarbons methylene chloride and trichloroethylene)
NATURAL LATEX	Natural rubber mainly from latex and the rubber tree	⊕ Very flexible and elastic ⊕ Good grip ⊕ Excellent resistance to tearing and bending ⊕ Good resistance to abrasion ⊕ Very robust ⊕ Waterproof ⊕ Protects against weak acids, caustics, alcohols and detergents ⊕ Protection viruses and bacteria	⊖ Poor chemical resistance against oils, greases, hydrocarbons and organic solvents ⊖ Proteins may cause allergies
POLYURE-THANE (PU)	Plastic that is microporous elastomer	⊕ Very flexible and elastic ⊕ No latex proteins ⊕ Clean – does not shed particles like other polymers ⊕ Good resistance to abrasion ⊕ Good resistance to oil ⊕ Does not harden in the cold ⊕ Does not soften in the heat ⊕ Excellent perspiration thanks to porous ventilation	⊖ Low chemical resistance ⊖ Poor resistance to hot water
PVC (POLY VINYL CHLORIDE)	Impermeable plastic	⊕ Flexible at even -20°C ⊕ Material softened by a 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 ⊕ No latex 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	⊖ Limited grip ⊖ Limited dexterity ⊖ Poor mechanical resistance ⊖ Poor resistance to aliphatic hydrocarbons (hexane, diesel, gasoline), aromatic hydrocarbons (benzene, toluene, xylene) and halogenated solvents (chloroform and chlorobenzene)
VITON	Synthetic rubber polymer – the last resort	⊕ Protects where nothing else protects ⊕ Chemical protection against PCBs ⊕ Excellent chemical protection against chlorinated, aliphatic and aromatic hydrocarbons	⊖ Limited grip ⊖ Limited dexterity ⊖ Not suitable for ketones, esters and nitro compounds

INVESTING IN TOMORROW

We do all that we can to make a positive impact within our company, through our products and for our planet, always seeking better ways to meet the demands of today without compromising tomorrow.

This is why a large proportion of our research is devoted to biodegradable products and to developing fibres that have a reduced impact on the environment. Our efforts to reuse and conserve resources in Japan have enabled us to obtain the ISO 14001 certification -a global standard in environmental management that helps us to continually improve our operations.

SHOWA R&D reaches a major breakthrough with ECO BEST TECHNOLOGY® (EBT®). EBT® accelerates the biodegradation of nitrile in biologically active landfills and anaerobic digesters as validated by independent certified laboratories using internationally recognized test methods (ASTM D5511). EBT® is composed of organic materials designed to make the gloves attractive to microbial activity. These microorganisms upon consuming the EBT® material excrete enzymes that depolymerize the nitrile in 1-5 years. The final result is biogases and inert humus.

p.74

SHOWA

NSK24

CHEMICAL GLOVE

Engineered to protect hands and arms from tenacious chemicals, oils and abrasions, the NSK 24 is now also available with our revolutionary EBT® technology. The double nitrile coating and cotton interlock liner is a no brainer choice for wet and greasy applications in the fishing, petro-chemical or agriculture sectors. Did we mention its EU Food safe approved as well?

p.74

SHOWA

731

CHEMICAL GLOVE

Created with premium-grade polymers and nitrile reinforcement, SHOWA 731 is a flock-lined 15 mil nitrile glove that brings you the pinnacle of tactile precision and high-capacity protection against solvents and acids. Using revolutionary EBT®, this mid-forearm gauntlet is designed for multiple uses and a range of applications, from food processing to manufacturing, janitorial to refinery operations.

p.68, 74

SHOWA

707HVO

CHEMICAL GLOVE

Crafted with SHOWA's revolutionary EBT, SHOWA 707HVO blends the best of single use and chemical resistant technology to deliver optimum fit, feel and comfort while protecting against chemicals. Its fluorescent orange colour makes it an excellent choice for food, janitorial or sanitation environments, or to separate applications on processing floors.

p.102

SHOWA

6110PF

SINGLE USE GLOVE

The inventors of the world's first single use nitrile glove bring you the world's first biodegradable single use nitrile glove. Regular nitrile gloves cannot attract enough (if any) microbial activity to begin breaking down the polymer's molecular structure, thus leaving the process of reclamation to light, heat, mechanical stress and moisture... unlike the SHOWA 6110PF biodegradable glove.

Eco Best Technology®

Protection & Preservation in **ONE**

Our Eco Best Technology® (EBT®) is the breakthrough innovation that gave rise to the world's first biodegradable nitrile glove. EBT® is composed of organic materials that accelerate the biodegradation of nitrile in biologically active landfills.

BIODEGRADABLE IN 1-5 YEARS

Protection is our first priority. With SHOWA's revolutionary Eco Best Technology® (EBT®), we provide top of the line hand protection, with a reduced environmental impact on our planet. That's because our gloves made from EBT® biodegrade in 1-5 years, when disposed of in active landfills.

REDUCED ENVIRONMENTAL IMPACT

When disposed in landfills, microorganisms consume, metabolize and break down EBT® materials into three natural compounds— organic soil, methane and carbon dioxide. This creates fertilizer, leaving zero waste behind.

TESTED ASTM D5526 ASTM D5511

EBT® requires biologically active landfills for biodegradation. Which means gloves with EBT® cannot even begin to biodegrade prior to disposal. These abilities have been validated by independent certified laboratories using ASTM International test methods (ASTM D5511).

Consider the number of single use gloves used every day in hospitals, offices, schools, warehouses, labs and even our own homes. The numbers are astronomical. With EBT®, each glove's bio-degradation process is accelerated by up to 100 years*. And every glove makes a difference.

* when disposed in active landfills. Actual time may vary depending on climate and location of landfill

[S-TEX]

COMFORT AND SAFETY GO HAND IN HAND

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

THE STORY OF HAGANE COIL®

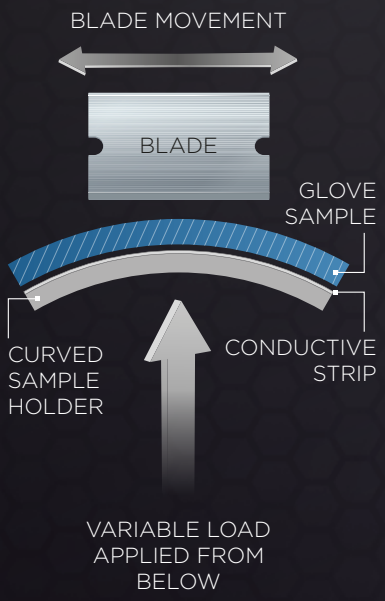
Our first notable liner for protection against mechanical risks was seamless knit nylon liner in glove B0500. launched back in 1988. Ensuring both comfort and protection was our aim from the get-go. Sturdy nylon combined with world's first polyurethane palm coating offers both dexterity and good abrasion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

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

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

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.



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

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

S-TEX SERIES p. 60-61

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

SHOWA **S-TEX KV3**
Hagane Coil® / Latex
ISO 13 997: F
EN 388 Cut Level F

SHOWA **S-TEX 581**
Hagane Coil® / Microporous foam Nitrile
ISO 13 997: E
EN 388 Cut Level E

SHOWA **S-TEX 300**
Hagane Coil® / Latex
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

SHOWA **S-TEX 376**
Hagane Coil® / Foam nitrile over nitrile
ISO 13 997: D
EN 388 Cut Level D

SHOWA **S-TEX 350**
Hagane Coil® / Nitrile
ISO 13 997: D
EN 388 Cut Level D

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

DURACOIL®

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.

CUT RESISTANT C/A3

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.

1 DURACoil®
2 HPPE

WHAT IS MULTIFILAMENT YARN?

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

IMAGINE ALL YOU CAN DO WITH A CONSOLIDATED CUT SERIES

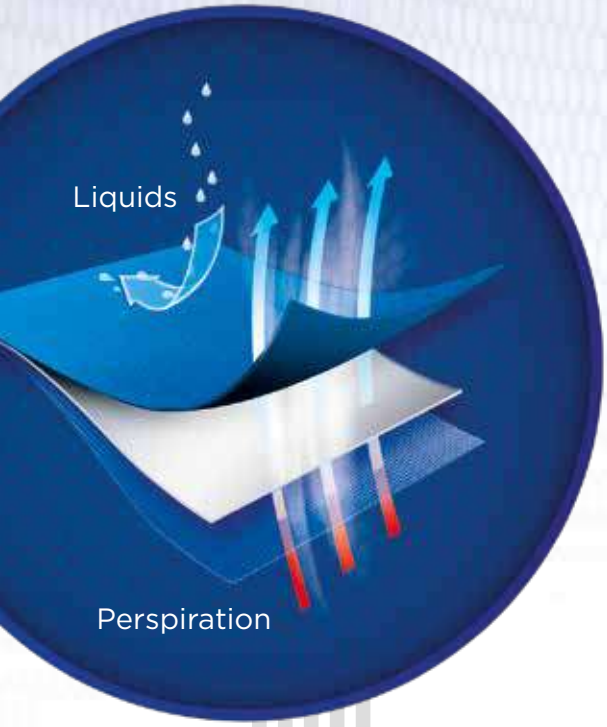
SHOWA responds to market demands for a one-stop shop solution with a complete series of seven Cut C/A3 glove models, with SHOWA quality and service at a nominal price.

The new DURACoil® glove series caters to a wide range of needs and applications, offering a versatile new range that consolidates your glove inventory for 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 Comfort		
	Dry and non-abrasive environments, composite handling	Assembling sharp metal parts and components	Handling parts and assembly in dry environments	General maintenance and logistics	Handling parts and assembly in humid environments	Assembling and handling sharp-edged objects and parts in light greasy and oily environments	Assembling and handling sharp-edged objects and parts in heavy oily environments
546X Uncoated	✋	✋					
546 Polyurethane		✋	✋	✋			
546W White reinforced polyurethane		✋	✋	✋			
346 Natural latex			✋	✋	✋		
386 Microporous nitrile		✋				✋	
576 3/4 nitrile, extra foam nitrile		✋					✋
577 Fully dipped nitrile, extra foam nitrile		✋					✋

[TEMRES®]

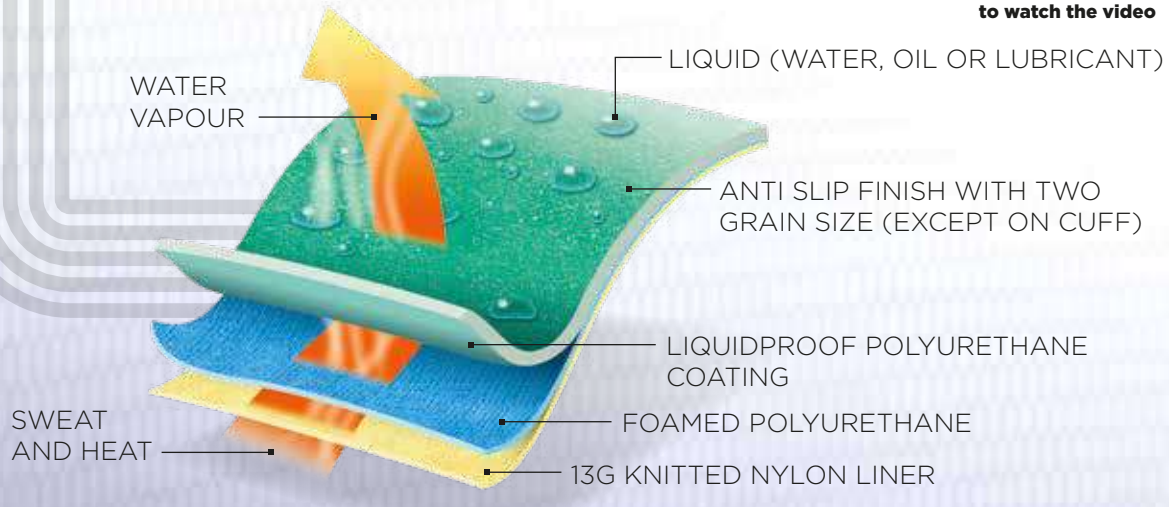


TEMRES® TECHNOLOGY ENABLES OUR GLOVES TO BE BREATHABLE AND WATERPROOF, A COMBINATION OF THE APPARENTLY OPPOSING BUT IMPORTANT FEATURES OFFERED IN A SINGLE GLOVE.

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.

Scan the QR-code with your smartphone camera to watch the video



HOW DOES IT WORK?

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

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

TEMRES® family

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

SHOWA
TEMRES® 281
p.37

SHOWA
TEMRES® 282
WINTER VERSION
p.88

MICROFIBRE

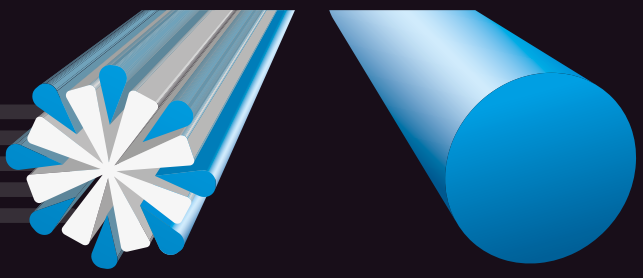
SAY GOODBYE TO SWEATY HANDS

AT SHOWA WE BELIEVE THAT COMFORT IS AS IMPORTANT AS THE PROTECTION, WHICH IS WHY WE REDUCED THE WEIGHT AND IMPROVED THE EFFICIENCY FOR OUR NEW MODELS. IN ORDER TO OFFER THIS PREMIUM COMBINATION, WE ENGINEERED A MICROFIBRE FABRIC.

WHAT IS MICROFIBRE?

Microfibre is synthetic fabric with very small fibres or threads. The diameter of microfibre is about 20 times smaller than a 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 capabilities.



MICROFIBRE FACTS:

- **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**

On the whole, microfibres are high performance and low maintenance fabrics.

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.

HOW DOES IT WORK?

Firstly, the microporous nitrile coating in 381 and 382 grants exceptional grip while allowing warm air and moisture from inside to escape, thus maintaining your hands dry.

Secondly, the microfibre liner absorbs perspiration and moisture quickly. Due to 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 glove. This results in cooler and dryer hands.

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** and **382** are the ideal multipurpose solutions. They are the lightest SHOWA microporous nitrile coated gloves supported by a microfibre liner with an abrasion resistance of level 4. Only fibres smaller than 1 denier can be called microfibres. The microfibre is 0.52 dennier thick and the gloves weigh only 19 grams each. Their comfort is further enhanced as breathability and moisture evaporation has increased by 20% compared to our standard offering.

SHOWA **381** p.29

SHOWA **382** p.28

BREATHEX FOAM

FOR THE ULTIMATE OUTDOOR COMPANION

INNOVATION MAKES SENSE WHEN IT ACTUALLY CONTRIBUTES TO SOMETHING USEFUL.

We discovered that the majority of workers use latex palm coated gloves for construction, logistics and general handling - outdoor work environments where they are exposed to changeable weather conditions all year round. In fact, companies were either purchasing 2 different types of gloves or workers were using the wrong gloves for the 2 seasons.

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

During dry and hot temperatures, wearing gloves causes hands to sweat and creates perspiration inside the glove. In cold and wet seasons, users wear fully coated gloves to keep hands clean, dry and warm. This means shifting gloves depending on climate and outdoor conditions. Users were wearing 2 different types of glove for the same purpose, resulting in double purchases, the wrong glove for each season, or both.

Based on these findings, **SHOWA designed the ultimate outdoor companion SHOWA 306 using BREATHEX FOAM TECHNOLOGY - a revolutionary dual latex coating technology that allows the glove to be both BREATHABLE and LIQUID RESISTANT.** The combination of full foam latex doubled with latex coating on the palm is the only alternative solution for workers to be protected with one glove. SHOWA 306 provides premium grip and dexterity with breathability in dry or wet environments, whatever the outdoor conditions are.

HOW DOES IT WORK?

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

THE ULTIMATE WINTER COMPANION

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

BENEFITS

Benefits: one solution for all purposes, whatever the outdoor conditions are:

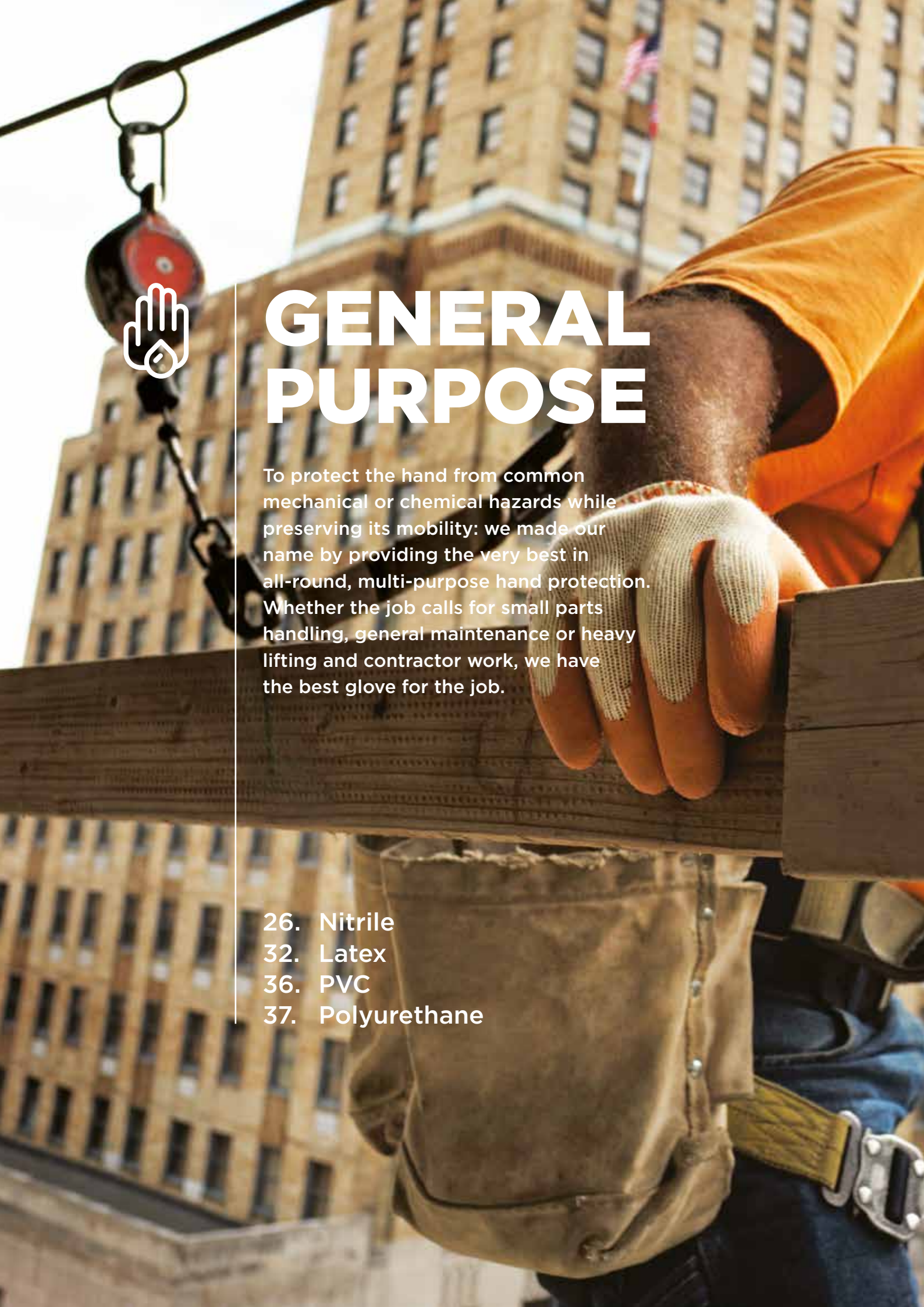
1. Aerated latex foam for breathability and reduced perspiration
2. Impermeability protects from liquid penetration
3. Latex coating offers a high level of grip and abrasion
4. Soft comfort and premium fit thanks to SHOWA's hand shape technology
5. High level of flexibility due to engineered coating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

RECOMMENDED APPLICATIONS

Construction, Logistics & warehousing, Assembly, Agriculture, Gardening, DIY, Refrigeration (406)

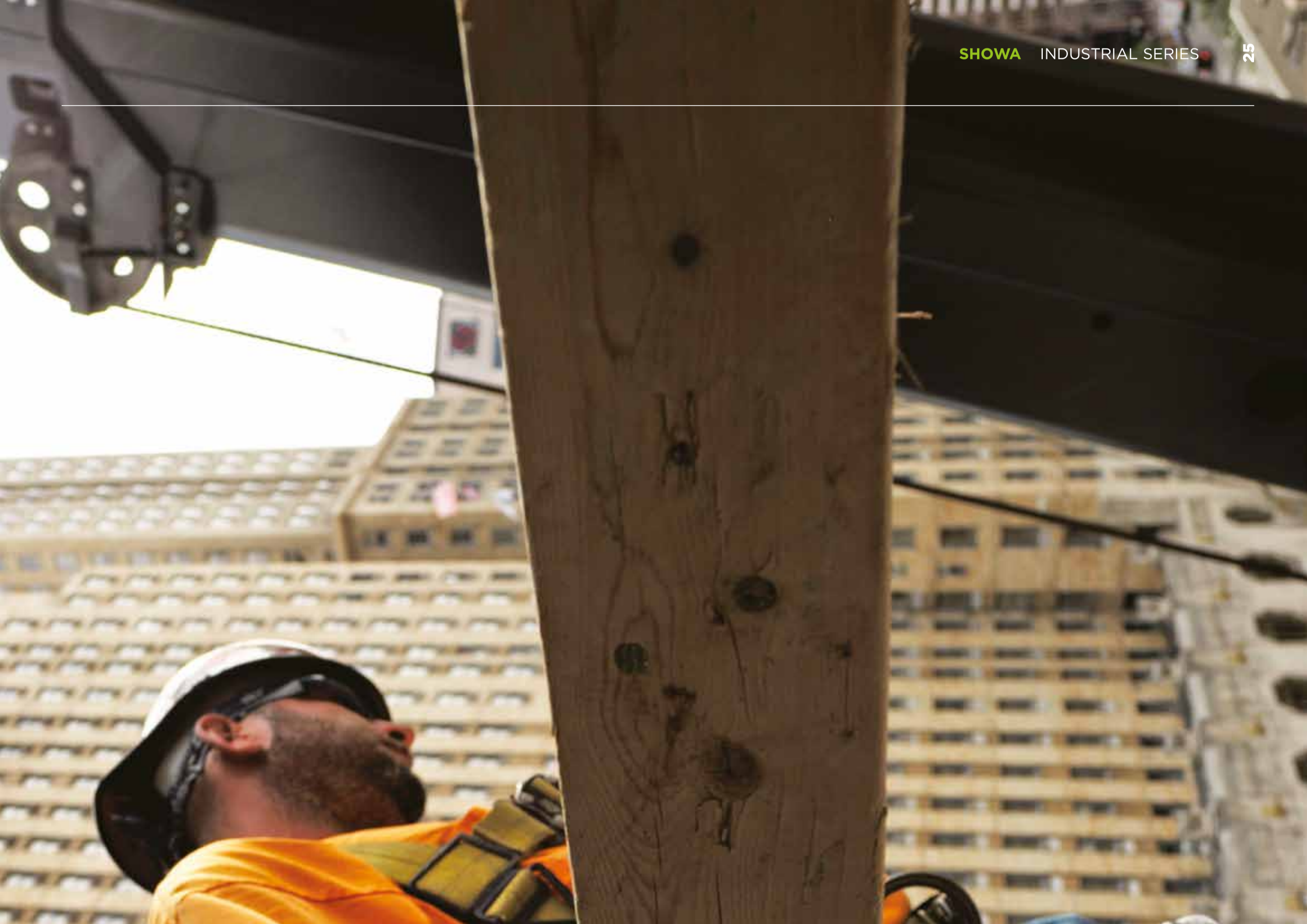
SHOWA 306
General purpose
p. 33

SHOWA 406
Cold protection
p. 89



GENERAL PURPOSE

To protect the hand from common mechanical or chemical hazards while preserving its mobility: we made our name by providing the very best in all-round, multi-purpose hand protection. Whether the job calls for small parts handling, general maintenance or heavy lifting and contractor work, we have the best glove for the job.



NITRILE

SHOWA

265R

Palm nitrile coating over nylon liner

BENEFITS: Thin nitrile coating

- **Ultra-light weight, elastic low-lint glove, resistant to deformation**
- **Nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **Thin nitrile coating provides flexibility and tactility while offering high abrasion resistance**
- **Excellent level of dexterity and tactility**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and extended wear**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:

Logistics
Automotive
Mechanical handling
Garden work
Construction
Roofing

FEATURES
LINER: 13 gauge seamless knit nylon
COATING: Nitrile
GRIP: Smooth
+: Ergonomic design that replicates the natural curvature of the hand

REF.	SIZE	LENGTH
265R	6/S	240mm
265R	7/M	250mm
265R	8/L	260mm
265R	9/XL	270mm

Cat. II CE EN 388:2016 3131X

SHOWA

370B

Palm nitrile coating over black nylon liner

BENEFITS: Optimal dexterity

- **Ultra-light weight, elastic low-lint glove, resistant to deformation**
- **Nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **Low-soil colour**
- **Thin nitrile coating provides flexibility and tactility while offering premium abrasion resistance**
- **Excellent level of dexterity and tactility**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and extended wear**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Agriculture
Horticulture
Construction

FEATURES
LINER: 13 gauge seamless knit nylon
COATING: Nitrile
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
370B	6/S	220mm
370B	7/M	230mm
370B	8/L	240mm
370B	9/XL	250mm
370B	10/XXL	260mm

Cat. II CE EN 388:2016 4121X

SHOWA

370W

Palm nitrile coating over white nylon liner

APPLICATIONS:

Agriculture
Horticulture
Construction

FEATURES
LINER: 13 gauge seamless knit nylon
COATING: Nitrile
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
370W	6/S	220mm
370W	7/M	230mm
370W	8/L	240mm
370W	9/XL	250mm
370W	10/XXL	260mm

Cat. II CE EN 388:2016 4121X

SHOWA

376R

¾ dipped nitrile with extra foam nitrile coating on palm over polyester/nylon liner

BENEFITS: Engineered grip technology platform for applications exposed to oils, greases & lubricants

- **A flexible and robust glove that absorbs perspiration to increase comfort**
- **Foam nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **Designed for optimal long lasting grip in oil and grease**
- **Advanced dual coating provides flexibility and tactility while offering abrasion resistance EN 388 level 4**
- **Excellent level of dexterity and tactility**
- **Designed for easy movement and continuous wear**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:

Automotive	Public works
Construction	Roofing
Masonry	Petrochemical

FEATURES

LINER: 13 gauge seamless knit polyester/nylon
COATING: Nitrile/nitrile foam
GRIP: Foam
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
376R	6/S	230mm
376R	7/M	250mm
376R	8/L	260mm
376R	9/XL	270mm
376R	10/XXL	280mm

Cat. II CE EN 388:2016 4121X

SHOWA

377

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

APPLICATIONS:

Construction	Automotive
Painting - Decorating	Oil platforms
Ship maintenance	Cementing

FEATURES

LINER: 13 gauge seamless knit polyester/nylon
COATING: Nitrile/nitrile foam
GRIP: Foam
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
377	6/S	220mm
377	7/M	230mm
377	8/L	250mm
377	9/XL	255mm
377	10/XXL	265mm

Cat. II CE EN 388:2016 4121X

Nitrile Foam Grip Series

+ WINTER VERSION:
SHOWA 477 - p.88
Insulated double nitrile coating

+ CUT VERSIONS:
SHOWA S-TEX 376 - p.61
with Hagane Coil®

SHOWA S-TEX 377 - p.61
with Hagane Coil®

+ IMPACT VERSION:
SHOWA 377IP - p.49
Anti-impact protection

+ CHEMICAL VERSION:
SHOWA 379 - p.73

NITRILE

SHOWA
350R

Palm nitrile coating over polyester/cotton liner

BENEFITS: High mechanical resistance

- **A flexible and robust glove that absorbs perspiration to increase comfort**
- **Nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **Thin nitrile coating provides flexibility and tactility while offering premium abrasion resistance**
- **Excellent level of dexterity and tactility**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and continuous wear**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:

Agriculture
Automotive
Construction
Labouring
Warehousing
Metallurgy
Transport

FEATURES
LINER: 10 gauge seamless knit polyester/cotton
COATING: Nitrile
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
350R	7/S	220mm
350R	8/M	230mm
350R	9/L	240mm
350R	10/XL	260mm

Cat. II CE EN 388:2016 4132X

SHOWA
380

Microporous nitrile coating on palm over nylon liner

BENEFITS: Designed for dexterity in oily environments

- **Ultra-light weight, elastic low-lint glove**
- **Protects the hand from oils, hydrocarbons and grease penetration**
- **Embossed palm finish pushes oils away to increase grip**
- **Optimal long lasting grip in dry and light oil**
- **Low-soil colour**
- **Excellent level of dexterity and tactility**
- **Breathable back of hand to reduce perspiration**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:

Construction
Mechanical
Maritime sector
Automotive
Internal fixing

FEATURES
LINER: 13 gauge seamless knit nylon
COATING: Microporous nitrile
GRIP: Embossed
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
380	6/S	220mm
380	7/M	220mm
380	8/L	240mm
380	9/XL	260mm

Cat. II CE EN 388:2016 3121X

SHOWA
382

Microporous nitrile coating over engineered microfiber liner, silicone-free

BENEFITS: Ultra-lightweight for silicone-sensitive, dry and oily environments

- **Embossed nitrile palm finish disperses oil for increased grip and longevity in light oily environments**
- **No transfer of silicone contaminations from the gloves to metal parts prior to painting**
- **No fingerprints left on glass or metal parts**
- **Microfibre properties boost vapour permeation and enhance breathability for drier, sweat-free hands**
- **The 0.84mm finger thickness provides an excellent level of tactility and sensitivity**
- **Ultra-lightweight (19g) and supple with a form-fitting, seamless knit design**
- **No latex allergy risks**

APPLICATIONS:

Aerospace
Airports & Ports
Automotive
Glass
Mechanical
Packaging
Warehousing

FEATURES
LINER: 13 gauge seamless knit engineered microfiber liner
COATING: Microporous nitrile
GRIP: Embossed
+: Silicone-free and latex-free

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

Cat. II CE EN 388:2016 4121X

SHOWA

381

Microporous nitrile coating
over engineered microfibre liner

BENEFITS:

- **Abrasion resistance lasts twice as longer as SHOWA 380 (8000 cycles vs 4000)**
- **Embossed nitrile palm finish disperses oil for increased grip and longevity in light oily environments**
- **The 0.84mm finger thickness provides an excellent level of tactility and sensitivity**
- **Microfibre properties boost vapour permeation and enhances breathability for drier, sweat-free hands**
- **Exceptional suppleness, ultra-comfort and hand fitting thanks to the combination of microfibre and spandex**
- **A flexible glove designed for easy movement and extended wear**
- **Seamless knit designed to prevent irritation**
- **Low lint with microfibre**
- **No latex allergy risks**

APPLICATIONS:
Transport
Mechanical
Logistics
Construction
Automotive

ENHANCED BREATHABILITY
BOOST VAPOUR PERMEATION

INCREASED GRIP
DISPERSES LIQUID AWAY

FEATURES
LINER: 13 gauge seamless knit engineered microfibre
COATING: Microporous nitrile
GRIP: Embossed
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II CE EN 388:2016 4121X

NITRILE

SHOWA
4400

¾ nitrile coating over cotton jersey liner

BENEFITS:
- **A flexible glove that absorbs perspiration to increase comfort**
- **Material provides a good mechanical resistance**
- **Nitrile protects the hand from oils and abrasion while retaining good touch**
- **Prevents oil and dirt penetration dripping through**
- **Great freedom of movement for the wrist**
- **Increased safety in poor lighting conditions**
- **No latex allergy risks**

APPLICATIONS:

Agriculture	Glass
Automotive	Logistics
Construction	Warehousing
Distribution	

FEATURES
LINER: Cut and sewn cotton jersey
COATING: Blue Nitrile
GRIP: Smooth

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

Cat. II EN 388:2016 3111X

SHOWA
4400Y

¾ nitrile coating over cotton jersey liner

APPLICATIONS:

Agriculture	Glass
Automotive	Logistics
Construction	Warehousing
Distribution	

FEATURES
LINER: Cut and sewn cotton jersey
COATING: Yellow Nitrile
GRIP: Smooth

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

Cat. II EN 388:2016 3111X

SHOWA
7000

Full nitrile coating over cotton jersey liner with knit wrist

BENEFITS:
- **Provides a good mechanical resistance**
- **Nitrile protects the hand from oils and abrasion while retaining good touch**
- **Impermeable for working in damp or greasy environments**
- **Low-soil colour**
- **Wrist well protected**
- **A flexible glove that absorbs perspiration to increase comfort**

APPLICATIONS:

Agriculture	Logistics
Automotive	Metallurgy
Construction	Petrochemical
Roofing	Public sector

FEATURES
LINER: Cut and sewn cotton jersey
COATING: Nitrile
GRIP: Smooth

REF.	SIZE	LENGTH
7000	10/L	260mm

Cat. II EN 388:2016 4111X

SHOWA

7066

¾ nitrile coating over cotton jersey liner with reinforced safety cuff

BENEFITS:

- **A flexible glove that absorbs perspiration to increase comfort**
- **Material provides a good mechanical resistance**
- **Nitrile protects the hand from oils and abrasion while retaining good touch**
- **Impermeable for working in damp or greasy environments**
- **Low-soil colour**
- **Breathable back of hand to reduce perspiration**
- **Extended safety cuff for a wrist well protected**

APPLICATIONS:

Agriculture
Automotive
Construction
Transport
Distribution
Oil platforms
Grassy area

FEATURES
LINER: Cut and sewn cotton jersey
COATING: Nitrile
GRIP: Smooth

REF.	SIZE	LENGTH
7066	8/S	240mm
7066	9/M	250mm
7066	10/L	260mm

Cat. II EN 388:2016 4111X

SHOWA

7166

Full nitrile coating over cotton jersey liner with reinforced safety cuff

BENEFITS:

- **A flexible glove that absorbs perspiration to increase comfort**
- **Provides a good mechanical resistance**
- **Nitrile protects the hand from oils and abrasion while retaining good touch**
- **Impermeable for working in damp or greasy environments**
- **Low-soil colour**
- **Extended safety cuff for a wrist well protected**

APPLICATIONS:

Agriculture
Automotive
Construction
Public works
Transport
Distribution
Oil platforms

FEATURES
LINER: Cut and sewn cotton jersey
COATING: Nitrile
GRIP: Smooth

REF.	SIZE	LENGTH
7166	10/L	260mm

Cat. II EN 388:2016 4111X

SHOWA

7199NC

Full nitrile coating with nitrile reinforced gauntlet over cotton jersey liner

BENEFITS: Heavy duty protection

- **A flexible glove that absorbs perspiration to increase comfort**
- **Provides a good mechanical resistance**
- **Full nitrile coating protects the hand from oils and abrasion while retaining good touch**
- **Impermeable for working in damp or greasy environments**
- **Low-soil colour**
- **Extended safety cuff for a wrist well protected**

APPLICATIONS:

Agriculture
Automotive
Glass
Logistics
Metallurgy
Petrochemical
Public sector

FEATURES
LINER: Cut and sewn cotton jersey
COATING: Nitrile
GRIP: Smooth

REF.	SIZE	LENGTH
7199NC	10/L	260mm

Cat. II EN 388:2016 4111X

LATEX

SHOWA

310 Orange

Latex palm coating over polyester/cotton liner

BENEFITS: High finish multipurpose glove

- **A flexible and robust glove with good resistance to tearing**
- **Latex coating protects the hand in damp environments and against detergents or alcohols**
- **Natural rubber properties offer strong grip performance**
- **Excellent level of dexterity and tactility**
- **Designed for easy movement and continuous wear**
- **Breathable back of hand to reduce perspiration**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:
Public sector
Logistics
Metallurgy
Distribution
Masonry

FEATURES
LINER: 10 gauge seamless knit polyester/cotton
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curvature

REF.	SIZE	LENGTH
310O	7/S	230mm
310O	8/M	240mm
310O	9/L	250mm
310O	10/XL	260mm

Cat. II EN 388:2016 2142X

SHOWA

310 Green

Latex palm coating over polyester/cotton liner

APPLICATIONS:
Public sector
Logistics
Metallurgy
Distribution
Masonry
Gardening

FEATURES
LINER: 10 gauge seamless knit polyester/cotton
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curvature

REF.	SIZE	LENGTH
310G	6/XS	220mm
310G	7/S	230mm
310G	8/M	240mm
310G	9/L	250mm
310G	10/XL	260mm
310G	11/XXL	270mm

Cat. II EN 388:2016 2142X

SHOWA

310 Black

Latex palm coating over polyester/cotton liner

APPLICATIONS:
Public sector
Logistics
Metallurgy
Distribution
Masonry

FEATURES
LINER: 10 gauge seamless knit polyester/cotton
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curvature

REF.	SIZE	LENGTH
310B	7/S	230mm
310B	8/M	240mm
310B	9/L	250mm
310B	10/XL	260mm

Cat. II EN 388:2016 2142X

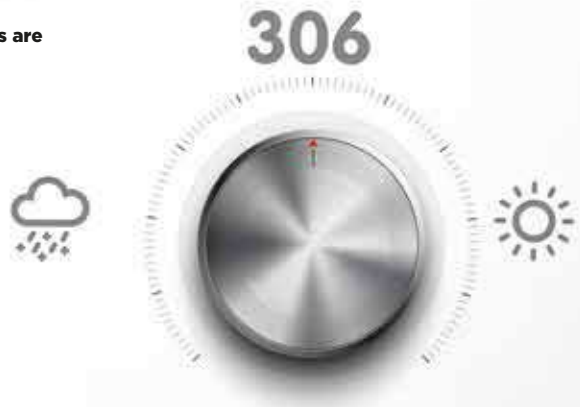
SHOWA

306

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

BENEFITS: One solution for all purposes, whatever the outdoor conditions are

1. **Aerated latex foam for breathability and reduced perspiration**
2. **Impermeability protects from liquid penetration**
3. **Latex coating offer high level of grip and abrasion resistance**
4. **Soft comfort and premium fit thanks to SHOWA ergonomic design**
5. **High level of flexibility through engineered coating**
6. **Ergonomic design that replicates the natural curvature of the human hand, reducing hand fatigue**



APPLICATIONS:
Construction
Agriculture
Logistics
Exterior works
Warehousing

FEATURES
LINER: 13 gauge seamless knit nylon/polyester
COATING: Foam latex/latex
GRIP: Rough

REF.	SIZE	LENGTH
306	6/S	230mm
306	7/M	240mm
306	8/L	260mm
306	9/XL	266mm
306	10/XXL	270mm

Cat. II EN 388:2016
2121X

+ WINTER VERSION:
SHOWA 406 - p.89
Double latex coating

LATEX

SHOWA
305

¾ Latex coating over polyester/cotton liner

BENEFITS: Reinforced coating on knuckles

- **A flexible glove that absorbs perspiration to increase comfort**
- **Latex coating provides good mechanical resistance**
- **Protects the hand in damp environments and against aggressive detergents**
- **Coated knuckles for extended protection on the back of the hand**
- **Excellent level of dexterity and tactility**
- **Designed for easy movement and extended wear**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Construction
Labouring
Public sector
Gardening

FEATURES

LINER: 10 gauge seamless knit polyester/cotton
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curvature

REF.	SIZE	LENGTH
305	7/S	230mm
305	8/M	240mm
305	9/L	250mm
305	10/XL	260mm

Cat. II EN 388:2016 2142X

+: A green latex coating version is available on demand

SHOWA
317

Latex palm coating over polyester liner

BENEFITS: High visibility glove

- **Latex coating provides good mechanical resistance**
- **Protects the hand in damp environments and against aggressive detergents or alcohols**
- **Increased safety in poor lighting conditions**
- **Phosphorescent marking after light-storage**
- **Excellent level of dexterity and tactility**
- **Designed for easy movement and extended wear**
- **Breathable back of hand to reduce perspiration**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Agriculture
Automotive
Construction
Labouring
Public sector
Distribution
Transport
Metallurgy

FEATURES

LINER: 10 gauge seamless knit polyester
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curvature

REF.	SIZE	LENGTH
317	7/S	230mm
317	8/M	250mm
317	9/L	260mm
317	10/XL	270mm

Cat. II EN 388:2016 2142X

SHOWA
330

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

BENEFITS: Designed for scaffoldings and metal tube handling

- **Latex coating protects the hand in damp environments and against aggressive detergents or alcohols**
- **Reinforced coating at thumb offer more resistance and durability**
- **Low-soil colour**
- **Excellent level of dexterity and tactility**
- **A flexible glove that absorbs perspiration to increase comfort**
- **Seamless knit designed to prevent irritation**
- **Designed for easy movement and extended wear**

APPLICATIONS:

Scaffolding
Agriculture
Automotive
Construction
Logistics
Metallurgy
Public sector

FEATURES

LINER: 10 gauge seamless knit polyester/cotton
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curvature

REF.	SIZE	LENGTH
330	7/S	230mm
330	8/M	240mm
330	9/L	250mm
330	10/XL	260mm

Cat. II EN 388:2016 2142X

SHOWA

341 Grey

Latex palm coating over grey nylon/polyester liner

BENEFITS: Engineered waterproof latex palm coating

- **Technology improvement on existing Grip series coating**
- **High level of flexibility and softness due to advanced grip technology**
- **Excellent level of dexterity and tactility**
- **Breathable back hand to reduce perspiration**
- **Soft liner for greater comfort**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:
Agriculture
Logistics
Construction
Internal fixing
Transport

FEATURES
LINER: 13 gauge seamless knit nylon/polyester
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
341G	6/S	230mm
341G	7/M	250mm
341G	8/L	260mm
341G	9/XL	270mm

Cat. II EN 388:2016 2121X

SHOWA

341 Red

Latex palm coating over red nylon/polyester liner

APPLICATIONS:
Agriculture
Logistics
Construction
Internal fixing
Transport

FEATURES
LINER: 13 gauge seamless knit nylon/polyester
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
341R	6/S	230mm
341R	7/M	250mm
341R	8/L	260mm
341R	9/XL	270mm

Cat. II EN 388:2016 2121X

SHOWA

341 Purple

Latex palm coating over purple nylon/polyester liner

APPLICATIONS:
Agriculture
Logistics
Construction
Internal fixing
Transport

FEATURES
LINER: 13 gauge seamless knit nylon/polyester
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
341P	6/S	230mm
341P	7/M	250mm
341P	8/L	260mm
341P	9/XL	270mm

Cat. II EN 388:2016 2121X

PVC

SHOWA

170R

Unsupported PVC coating over viscose flocked liner

BENEFITS:

- **Seals and protects the hand against chemicals while remaining flexible**
- **Impermeable for working in damp or greasy environments**
- **Excellent dexterity and tactility**
- **Surface enables a secure grip on slippery objects**
- **Extended protection on the forearm**
- **Non-powdered, "slip-on" treatment**
- **Easy to put on and remove, lint-free, dust-free**
- **A thin, light glove with a "second skin" feel**

APPLICATIONS:
Petrochemical
Janitorial
Chemical industry
Pharmaceutical & laboratory

FEATURES
LINER: Viscose flocked lined
COATING: PVC
THICKNESS: 0.60mm
GRIP: Smooth

REF.	SIZE	LENGTH
170R	8/M	300mm
170R	9/L	300mm
170R	10/XL	300mm

Cat. II EN 388:2016 3000X

SHOWA

600

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

BENEFITS:

- **A flexible glove that absorbs perspiration to increase comfort**
- **Material provides good mechanical resistance**
- **PVC protects the hand against chemicals while remaining flexible**
- **Impermeable for working in damp or greasy environments**
- **Rough palm finish enhances grip**
- **Wrist well protected**
- **Designed for easy movement and continuous wear**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:
Agriculture
Viticulture
Garden work
Waste collector

FEATURES
LINER: Seamless knit cotton
COATING: PVC
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
600	7/S	240mm
600	8/M	250mm
600	9/L	265mm
600	10/XL	270mm

Cat. II EN 388:2016 3121X

POLYURETHANE

SHOWA

TEMRES® 281

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

BENEFITS: The 1st innovative glove combining waterproof and breathability

- **Membrane keeps water out of the glove, while allowing warm air and moisture from inside to escape**
- **Liquid proof protects hands against liquids and oils**
- **Fingertips finish increase protection and provide optimal grip**
- **Level 4 abrasion resistance**
- **Breathable technology keeps your hands dry**
- **Flexibility and tactility due to a thin coating technology**
- **Seamless knit designed to prevent irritation**
- **Minimal allergy risks**

APPLICATIONS:
Agriculture
Garden work
Automotive
Maintenance
Janitorial
Maritime sector
Tiling

FEATURES
LINER: Nylon
COATING: Breathable PU/nitrile
GRIP: Rough
+: Premium technology offering breathability and waterproof
+: Ergonomic design hand mould that replicates the natural curves of human hand

REF.	SIZE	LENGTH
TEMRES 281	7/S	270mm
TEMRES 281	8/M	275mm
TEMRES 281	9/L	275mm
TEMRES 281	10/XL	280mm
TEMRES 281	11/XXL	290mm

Cat. II CE EN 388:2016 4121X

Scan the QR-code with your smartphone camera to watch the video

+ WINTER VERSION:
SHOWA TEMRES® 282 - p.88

POLYURETHANE

SHOWA

B0500 Black

Polyurethane palm coating over black nylon liner

BENEFITS: Thin coating for maximum dexterity

- **Ultra-light, elastic low-lint glove, resistant to deformation**
- **PU protects the hand from oils and abrasion while remaining elastic**
- **Low-soil colour**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and continuous wear**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:
Logistics
Automotive
Horticulture
Construction
Internal fixing

FEATURES
LINER: 13 gauge seamless knit nylon
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II EN 388:2016 3131X

SHOWA

B0500 White

Polyurethane palm coating over white nylon liner

APPLICATIONS:
Logistics
Automotive
Horticulture
Construction
Internal fixing

FEATURES
LINER: 13 gauge seamless knit nylon
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II EN 388:2016 3131X

SHOWA

B0502 White

Polyurethane palm coating over white nylon/polyester liner

BENEFITS: A light, elastic low-lint glove

- **The finger thickness: 0.79mm provides an excellent level of tactility and sensitivity**
- **PU coating resists oils and abrasion while remaining elastic**
- **A flexible glove designed for easy movement and extended wear**
- **Breathable back of hand to reduce perspiration**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:
Automotive
Construction
DIY
Logistic and warehousing
Horticulture

FEATURES
LINER: 13 gauge seamless knit nylon/polyester
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
B0502W	6/S	210mm
B0502W	7/M	220mm
B0502W	8/L	230mm
B0502W	9/XL	250mm
B0502W	10/XXL	265mm

Cat. II EN 388:2016 3121X

SHOWA

B0600

Polyurethane fingertips coating over nylon liner

BENEFITS: Extreme dexterity

- **PU protects from oils and micro-cuts while remaining flexible**
- **A light, elastic low-lint glove, resistant to deformation**
- **No fingerprints left on handled objects**
- **Great freedom of movement for the wrist**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:
Automotive
Electronic component
White room
Precious metal manipulation

FEATURES
LINER: 13 gauge seamless knit nylon
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II EN 388:2016 0131X

SHOWA

B0605

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

APPLICATIONS:
Automotive
Electronic component
White room
Precious metal manipulation

FEATURES
LINER: 13 gauge seamless knit nylon
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II EN 388:2016 0131X

SHOWA

B0610

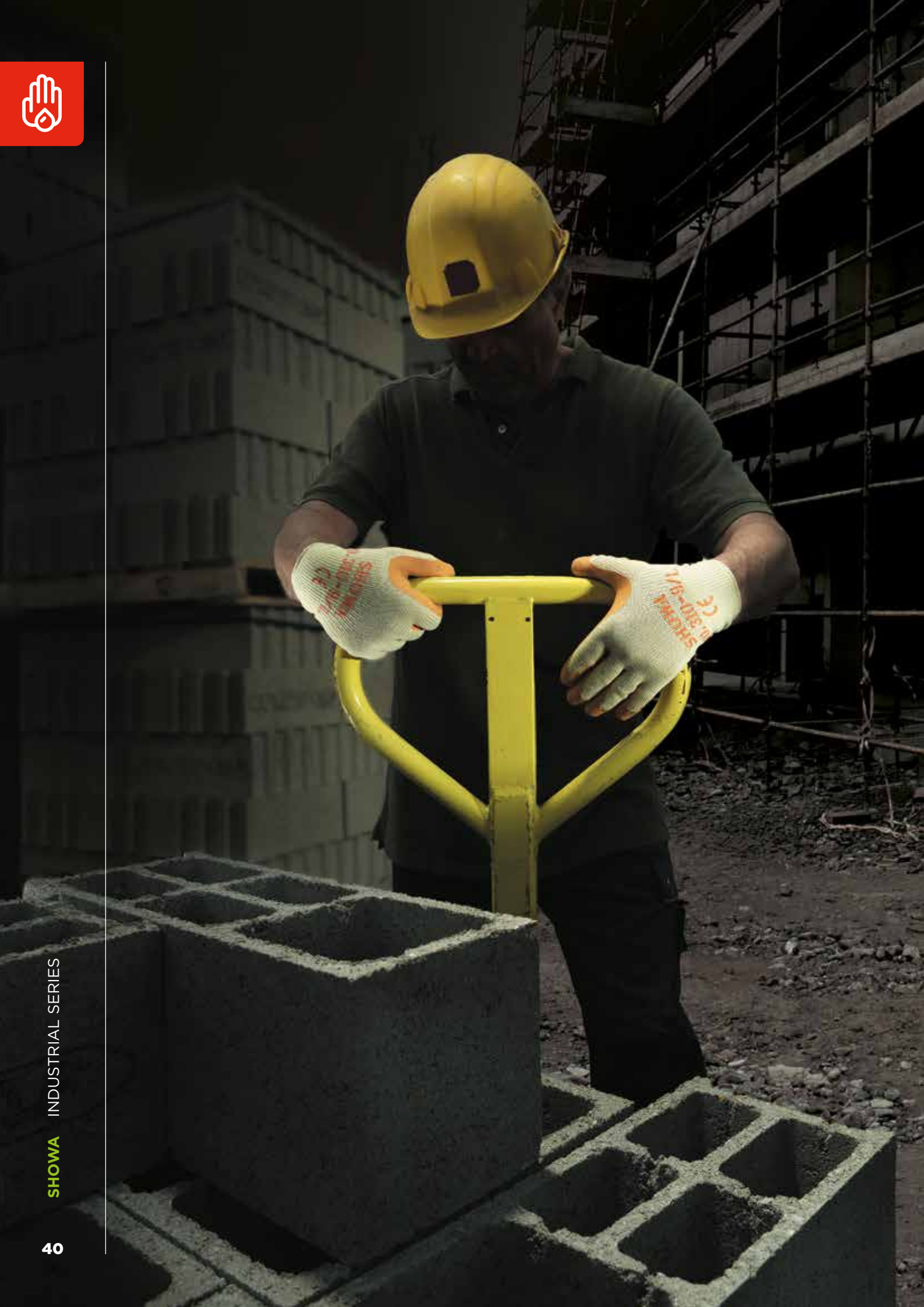
Uncoated nylon liner

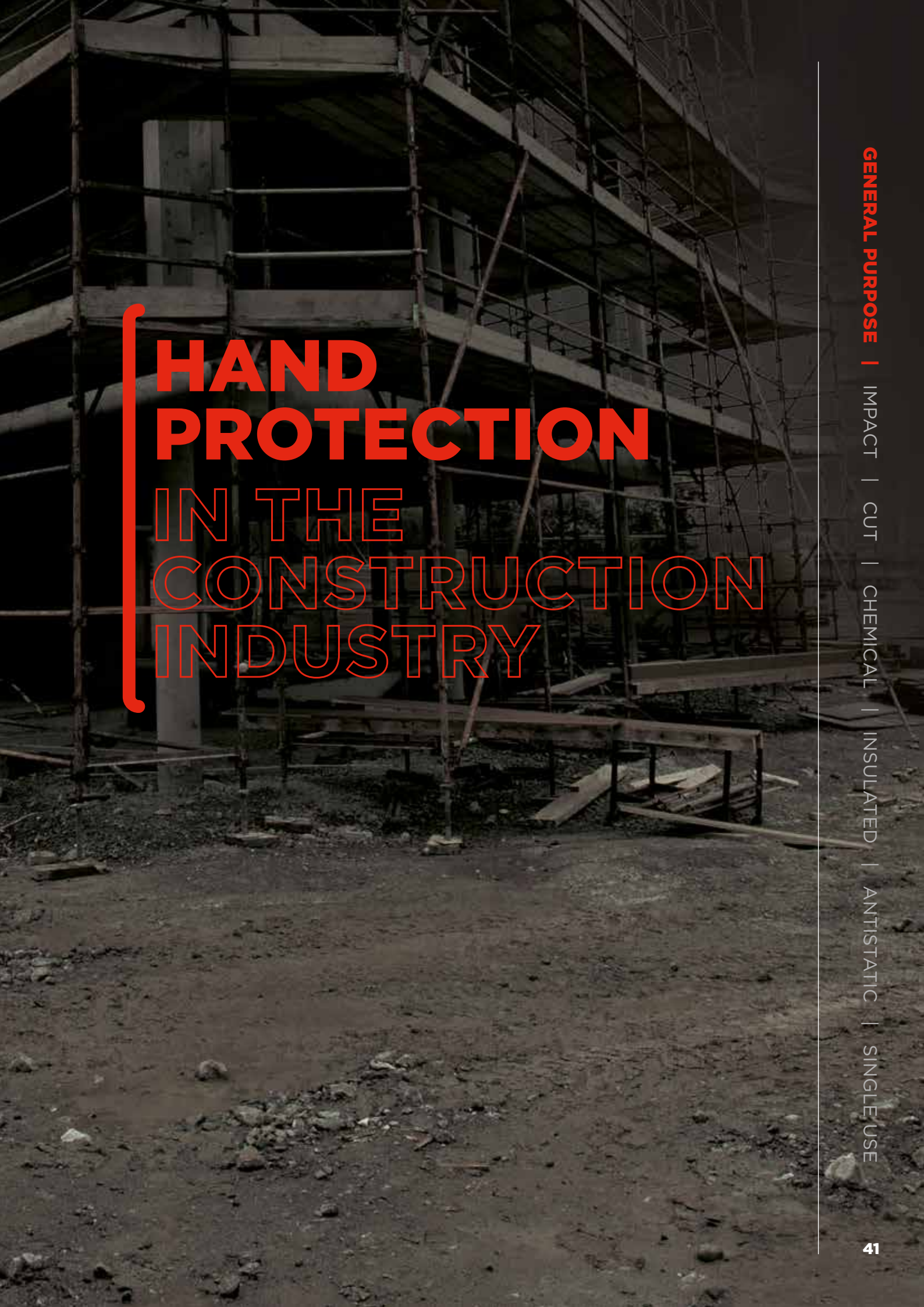
APPLICATIONS:
Logistic
Automotive
Electronic component
Luxury packaging
Quality control

FEATURES
LINER: 13 gauge seamless knit nylon
COATING: Uncoated
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. I
Minor risks





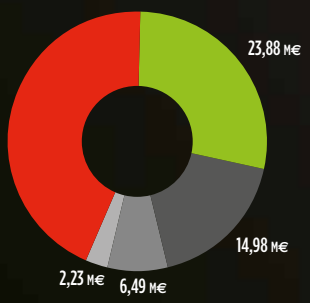
HAND PROTECTION IN THE CONSTRUCTION INDUSTRY

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.**

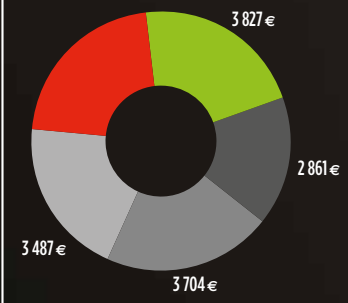
Every year, serious and fatal injuries to workers have a devastating social and emotional impact on victims, their families, their colleagues and the company's management. It makes sense for employees to protect themselves at all times, no matter how small the risk. As we all know, it's better to be 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€



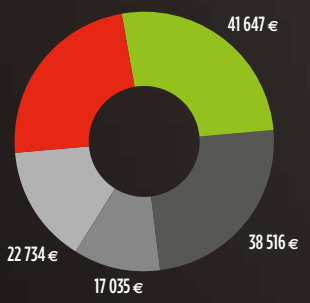
Financial cost of workplace accidents
(source: Carsat, France 2011)

3 841 €



Average cost of lost-time accidents (including work-related ill health)
(source: Carsat, France 2011)

37 297 €



Average cost of occupational accidents causing permanent disability (including work-related ill health)
(source: Carsat, France 2011)

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

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

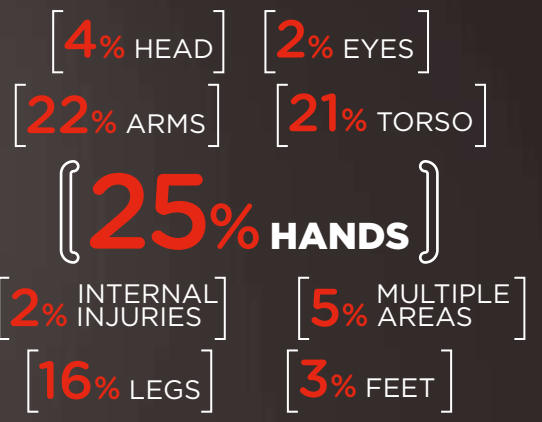
Other miscellaneous costs

- 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

25% **of all lost-time accidents involve hands**

7% **of accidents involving hands lead to permanent disability**

14% **of all working days lost through accidents are due to hand injuries**



BREAKDOWN OF OCCUPATIONAL ACCIDENTS LEADING TO PERMANENT DISABILITY ACCORDING TO THE AREA OF INJURY

(France 2011 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.

GENERAL HANDLING




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

		CHEMICAL		CUT PROTECTION			COLD	SPECIFIC		
										
377	317	660	379	DURACoil® 546	S-TEX 376	S-TEX 581	477	7550	281	377IP
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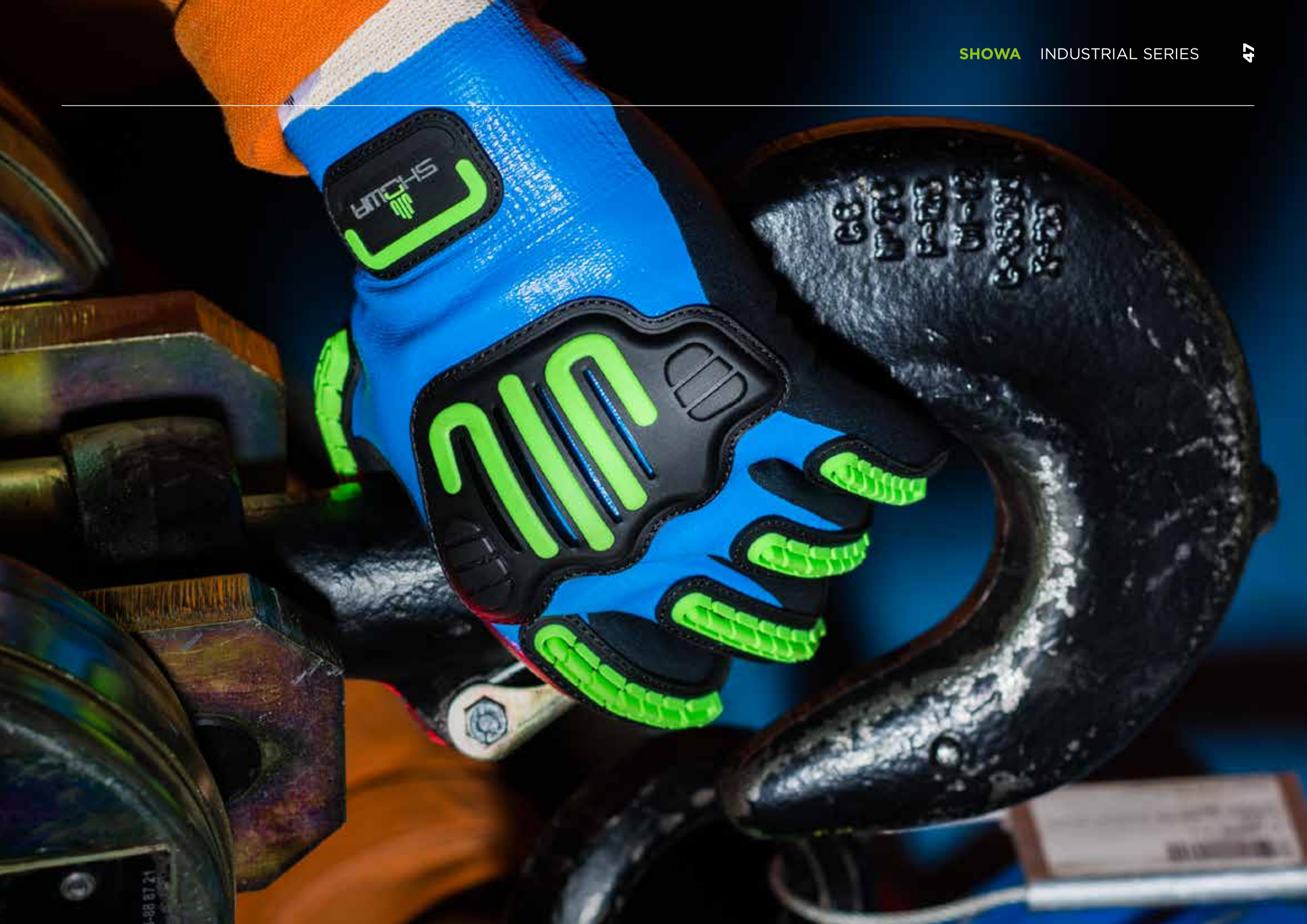
IMPACT PROTECTION

Impact your protection not your hands!
For oil & gas, construction and mining workers that require an impact protection combined with oil grip and fully impermeable protection against mud, oil and liquids. SHOWA 377IP is the most complete protection so far.

48. Nitrile

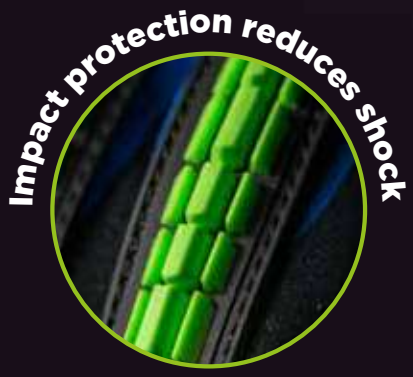

SHOWA

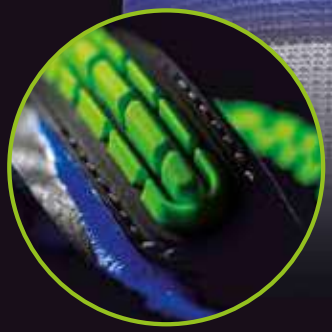
NITRILE

SHOWA 377IP

IMPACT PROTECTION, COMBINED WITH OIL GRIP & IMPERMEABILITY

This glove provides an impact protection on the most fragile parts of the hand: knuckles, thumb and fingers while combining an excellent premium grip that preserves the wearer from grease and liquids penetration.





STITCHED PROTECTION

ENHANCES GLOVE'S LIFETIME

SHOWA

377IP

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

BENEFITS

- Impact protection reduces shock energy on metacarpals and knuckles, adds pinch-point protection for fingertips
- A flexible, robust glove offering great dexterity combine with good resistance to tearing
- Foam nitrile palm finish disperses oil, sludge and mud away to maximize grip
- Nitrile protects from water, oils, hydrocarbons and grease splashes/ penetration with optimal long-lasting grip
- Excellent fitting due to optimal liner design
- Seamless knit designed to prevent irritation
- No latex – minimal allergy risks

APPLICATIONS

Drilling
Digging
Deck crew
Fitters
Riggers
Pipe Fitters
Handling heavy equipment
Demolition

FEATURES

LINER: 13 gauge seamless knit polyester/nylon
COATING: Nitrile/nitrile foam
GRIP: Foam
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II CE EN 388:2016 4121X

RECOMMENDED FOR THESE LINES OF WORK:

OIL & GAS | MINING | DEMOLITION | CONSTRUCTION | SHIP BUILDING | DIY | LOGISTIC

CUT PROTECTION

More than 80% of all hand and arm injuries are due to cuts and lacerations, most of which can be traced to an absence of gloves. 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, thus ensuring compliancy as well as safety.

SHOWA CUT INNOVATIONS FOR PROTECTION & COMFORT

DURACoil® SERIES

MULTI-PURPOSE CUT PROTECTION 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 ultra-comfortable multi-purpose gloves with durable cut resistant properties for precision handling.

1 DURACoil®
2 HPPE

S-TEX SERIES

STAINLESS STEEL PROTECTION FOR CUT LEVEL D/A4 AND UP

Hagane Coil® technology enables us to provide high levels of cut resistance without sacrificing comfort. The key ingredient in each S-TEX glove is the unique coiling technique that binds an attending yarn to a stainless steel core. This provides better protection than any natural or synthetic fibre, yet is thin enough to allow flexibility and free movement as the hand bends and flexes.

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

WHAT YOU NEED TO KNOW ABOUT THE NEW GLOBAL CUT STANDARDS

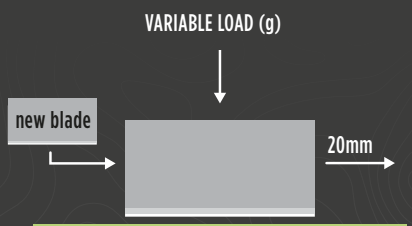
EN 388: 2016 (ISO 13997)

- 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

DIFFERENT TESTING METHODS

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

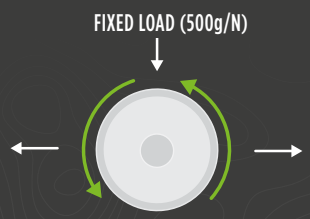
TDM-100 CUT MACHINE



Ratings = Mass required

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 MACHINE



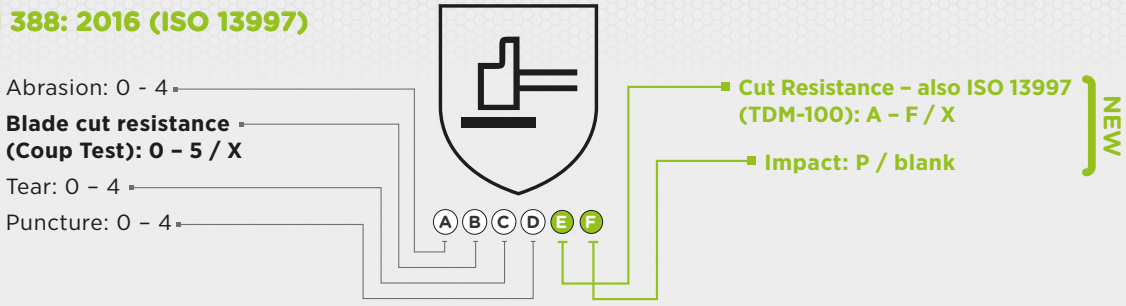
Ratings = Ratio of number of cycles

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

UNDERSTANDING YOUR CUT GLOVE

IDENTIFYING YOUR PROTECTION: REPORTING & MARKINGS

EN 388: 2016 (ISO 13997)



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

LOW CUT LEVEL NEEDED		MEDIUM CUT LEVEL NEEDED	HIGH CUT LEVEL NEEDED		
A	B	C	D	E	F
	540D	NEW 546X	4561	8110	8127
	541	NEW 546	NEW 234	S-TEX 581	NEW 257
	542	NEW 546W	NEW 234X	3416	NEW 257X
	545	NEW 346	S-TEX 541		S-TEX KV3
	KV660	NEW 386	S-TEX 300		
		NEW 576	S-TEX 350		
		NEW 577	S-TEX 376		
		GP-KV1	S-TEX 377		
		GP-KV2R			
		240			

N=gx0.00981

force = mass x 0.00981

ANSI vs. EN

ANSI/ISEA 105: measures **MASS** using grams

EN 388: measures **FORCE** using newtons

EN 388: 2016 Tested to ISO 13997	A 2N-5N	B 5N-10N	C 10N-15N	D 15N-22N	E 22N-30N	F 30N+

TYPICAL APPLICATIONS

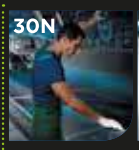
- Light material handling
- Small parts assembly (without sharp edges)
- Cardboard packaging
- General purpose
- Shipping & receiving

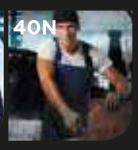
- Aircraft engine building & assembly
- White goods manufacturing
- Carbon fiber handling
- Recycling component dismantling

- Metal panels
- Small parts assembly (with sharp edges)
- Light automotive body assembly
- Sheet glass handling in production
- Electrical wire & component assembly

- Steel fixing & erecting
- Medium pressing oily metal parts
- Canning & bottling
- Food preparation & processing
- Automotive maintenance & repairs

- Cable trunking
- Food deboning
- Glass & window handling
- Heavy pressing oily metal parts
- Metal cut-off recycling





- Meat processing
- Heavy duty glass & bottling
- Pulp & paper
- Heavy metal sheet handling
- Canning

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

INCREASE OF RISK SEVERITY

CUT LEVEL B

SHOWA

540D

Polyurethane coating
on palm over HPPE liner

BENEFITS: Dexterity and cut protection

- **A flexible glove providing effective protection against cuts and abrasion**
- **Suitable for dry or light oil applications**
- **PU coating provides grip and assured handling**
- **Thin and lightweight glove enhancing dexterity**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and extended wear**
- **Seamless knit designed to prevent irritation**
- **Minimal allergy risks**

APPLICATIONS:
Metallurgy
Sheet metal
Internal fixing

FEATURES
LINER: 13 gauge seamless knit HPPE
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II EN 388:2016
4241B

SHOWA

541

Polyurethane coating
on palm over HPPE liner

BENEFITS: Premium combination of cut resistance and comfort

- **PU coating highly resistant to abrasion**
- **Thin and lightweight glove enhancing dexterity**
- **PU protects the hand from oils and abrasion while remaining elastic**
- **Low-soil colour**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and continuous wear**
- **Very flexible with a soft liner providing high comfort**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:
Public sector
Metallurgy
Sheet metal
Transport and logistic
Internal fixing
Automotive
Construction

FEATURES
LINER: 13 gauge seamless knit HPPE
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
541	6/S	220mm
541	7/M	225mm
541	8/L	235mm
541	9/XL	255mm
541	10/XXL	280mm

Cat. II EN 388:2016
4342B

SHOWA

542

Polyurethane coating
on palm over HPPE liner

APPLICATIONS:
Public sector
Metallurgy
Sheet metal
Transport and logistic
Internal fixing
Automotive
Construction

FEATURES
LINER: 13 gauge seamless knit HPPE
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II EN 388:2016
4341B

UNCOATED VERSION:
SHOWA 542X

Cat. II EN 388:2016
2240A

SHOWA

545

Nitrile coating on palm over HPPE liner

BENEFITS:

- **A flexible, light glove providing effective protection against cuts**
- **Nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **Resistant to abrasion with effective long lasting grip in oil**
- **Enhance handling of oily sharp piece**
- **Breathable back of hand to reduce perspiration**
- **Provides easy movement and comfort for an extended wear**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Maritime sector
Automotive
Internal fixing
Maintenance
Construction
White goods

FEATURES

LINER: 13 gauge seamless HPPE knit
COATING: Nitrile
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II CE EN 388:2016 4242B

Extended protection to be worn with your cut resistant glove

SHOWA

DS45

Seamless knitted HPPE sleeve

BENEFITS:

- **Extended protection for the entire arm**
- **45cm length**
- **Seamless knit designed to prevent irritation**
- **Minimal allergy risks**

APPLICATIONS:

Automotive
Glass
Manufacturing
Bottling
Recycling

FEATURES

LINER: Seamless HPPE knit
COATING: Uncoated

REF.	SIZE	LENGTH
DS45	One size	450mm

Cat. II CE EN 388:2016 4240A

DuPont™ Kevlar®

SHOWA

KV660

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

BENEFITS: Cut and chemical protection combination

- **Unique SHOWA PVC dipping technology provides flexibility and suppleness**
- **Extended protection on the forearm**
- **Combined chemical resistance and cut protection**
- **PVC seals and protects the hand against chemicals while remaining flexible**
- **Suitable for working in damp or greasy environments, enabling you to grip objects securely**
- **Rough finish enhance grip performance**
- **Designed for easy movement and continuous wear**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Glass
Bottling
Utilities
Petrochemical
Chemical based

FEATURES

LINER: Seamless Kevlar® knit
COATING: PVC
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III CE 2777 EN 388:2016 4X42B EN 374-5:2016 EN 374-1:2016/ Type B JKL

CUT LEVEL C

SHOWA

DURACoil® 546

Polyurethane foam coating over engineered DURACoil® liner reinforced with HPPE

BENEFITS: Ultra-comfortable multi-purpose glove with durable cut resistant properties for precision handling

- **Increased cut resistance performance due to engineered DURACoil® liner**
- **PU foamed coating protects the hand from oils and abrasions while remaining breathable**
- **Maximum comfort when performing delicate tasks**
- **Breathable back of hand reduces perspiration and keeps hands dry**
- **Cost-efficient gloves that can be laundered and re-used**

APPLICATIONS:

Aerospace
Automotive
Engineering
Glass
Manufacturing
Mechanical
Metallurgy
Railways
Warehousing

FEATURES

LINER: 13 gauge seamless knit engineered yarn/polyester with HPPE
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design that replicates the natural hand

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

Cat. II EN 388:2016 4X42C

SHOWA

DURACoil® 546W

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

BENEFITS: White cut level C/A3 glove for general precision handling in dirt-sensitive environments

- **Increased cut resistance performance due to engineered DURACoil® liner**
- **Reinforced polyurethane coating enhances abrasion and oil resistance compared to regular PU**
- **Light colour helps indentify soiling and contamination**
- **Maximum comfort when performing delicate tasks**
- **Breathable back of hand reduces perspiration and keeps hands dry**
- **Cost-efficient gloves that can be laundered and re-used**

APPLICATIONS:

Aerospace
Automotive
Cleanrooms
Laboratory
Manufacturing
Mechanical
Metallurgy
Pharmaceutical

FEATURES

LINER: 13 gauge seamless knit engineered yarn/polyester with HPPE
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design that replicates the natural hand

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

Cat. II EN 388:2016 4X42C

SHOWA

DURACoil® 546X

Uncoated engineered DURACoil® liner reinforced with HPPE

BENEFITS: A flexible, light glove providing effective protection against cuts

- **Increased cut resistance performance due to engineered DURACoil® liner**
- **Optimal dexterity and tactile feel retained**
- **Light colour helps indentify soiling and contamination**
- **Maximum comfort when performing delicate tasks**
- **Cost-efficient gloves that can be laundered and re-used**
- **Seamless knit designed to prevent irritation for continuous wear**

APPLICATIONS:

Aerospace
Automotive
Cleanrooms
Manufacturing
Mechanical
Warehousing

FEATURES

LINER: 13 gauge seamless knit engineered yarn/polyester with HPPE
COATING: Uncoated
GRIP: Smooth
+: Ergonomic design that replicates the natural hand

REF.	SIZE	LENGTH
DURACoil 546X	6/S	220mm
DURACoil 546X	7/M	230mm
DURACoil 546X	8/L	240mm
DURACoil 546X	9/XL	250mm

Cat. II EN 388:2016 4X41C

SHOWA

DURACoil® 346

Latex coatingover engineered DURACoil® liner reinforced with HPPE

BENEFITS: Lightweight and durable with excellent resistance to tearing

- **Increased cut resistance performance due to engineered DURACoil® liner**
- **Natural latex coating protects the palm and fingers from liquids, snags, and abrasions**
- **Rough texturing on palm ensures exceptional grip**
- **Maximum comfort when performing delicate tasks**
- **Breathable back of hand reduces perspiration**
- **Cost-efficient gloves that can be laundered and re-used**

APPLICATIONS:

Construction	Manufacturing
DIY	Municipal Services
Glass	Warehousing

FEATURES

LINER: 13 gauge seamless knit engineered yarn/polyester with HPPE
COATING: Latex
GRIP: Rough
+: Ergonomic design that replicates the natural hand

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

Cat. II EN 388:2016 2X42C

SHOWA

DURACoil® 386

Microporous nitrile coating over engineered DURACoil® liner reinforced with HPPE

BENEFITS: Light, supple gloves with good resistance to punctures and nicks

- **Increased cut resistance performance due to engineered DURACoil® liner**
- **Microporous nitrile coating protects the hand from grease, hydrocarbons, and abrasions while remaining aerated**
- **Embossed nitrile palm finish disperses oil for increased grip and longevity in light oily environments**
- **Breathable back of hand reduces perspiration**
- **Cost-efficient gloves that can be laundered and re-used**

APPLICATIONS:

Aerospace	Engineering
Airports & Ports	Manufacturing
Automotive	Mechanical
Construction	Packaging

FEATURES

LINER: 13 gauge seamless knit engineered yarn/polyester with HPPE
COATING: Microporous nitrile
GRIP: Embossed
+: Ergonomic design that replicates the natural hand

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

Cat. II EN 388:2016 4X42C

SHOWA

DURACoil® 576

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

SHOWA

DURACoil® 577

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

BENEFITS: Durable cut protection and long lasting anti-slip grip in wet and oily conditions

- **Increased cut resistance performance due to engineered DURACoil® wrapping technology**
- **Foam nitrile over nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **Advanced dual coating provides flexibility and tactility while offering abrasion resistance EN 388 level 4**
- **Liquid-proof to end of coated area (577 has full hand and wrist coverage)**
- **Cost-efficient gloves that can be laundered and re-used**

APPLICATIONS:

Aerospace	Glass
Automotive	Manufacturing Mechanical
Construction Engineering	Oil & Gas

FEATURES

LINER: 13 gauge seamless knit engineered yarn/polyester with HPPE
COATING: Nitrile/foam nitrile
GRIP: Foam
+: Ergonomic design that replicates the natural hand

REF.	SIZE	LENGTH	REF.	SIZE	LENGTH
DURACoil 576	6/S	220mm	DURACoil 577	6/S	250mm
DURACoil 576	7/M	230mm	DURACoil 577	7/M	265mm
DURACoil 576	8/L	250mm	DURACoil 577	8/L	275mm
DURACoil 576	9/XL	260mm	DURACoil 577	9/XL	275mm
DURACoil 576	10/XXL	270mm	DURACoil 577	10/XXL	280mm

Cat. II EN 388:2016 4X42C

CUT LEVEL C

DuPont™ Kevlar.

SHOWA

GP-KV1

Latex coating on palm over Kevlar® liner

BENEFITS: The balance between cut protection and dexterity

- **Excellent mechanical performance**
- **Flexible and supple so allows dexterity**
- **Offers good abrasion resistance**
- **Latex protects the hand in damp environments**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and continuous wear**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Automotive
Glass
Recycling
Metallurgy

FEATURES

LINER: 10 gauge seamless knit Kevlar®
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
GP-KV1	7/S	230mm
GP-KV1	8/M	245mm
GP-KV1	9/L	255mm
GP-KV1	10/XL	270mm

Cat. II — EN 388:2016 — 3X43C

DuPont™ Kevlar.

SHOWA

GP-KV2R

Nitrile coating on palm over Kevlar® liner

APPLICATIONS:

Automotive
Glass
Recycling
Metallurgy

FEATURES

LINER: 10 gauge seamless knit Kevlar®
COATING: Nitrile
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II — EN 388:2016 — 3X44C

DuPont™ Kevlar.

SHOWA

240

Sponge neoprene palm coating over Kevlar®, modacrylic, fibreglass liner

BENEFITS: Combination of Arc flash and cut protection

- **Protects against arc flash: Arc flash level 2**
- **Kevlar® liner increases cut protection: EN 388 level C**
- **Good resistance against flames and heat**
- **Provides strong mechanical resistance level**
- **Flat dipped sponge neoprene coating provides excellent grip while remaining soft and flexible**

APPLICATIONS:

Construction
Maritime sector
Metallurgy
Oil & Gas/Offshore

FEATURES

LINER: 13 gauge seamless Kevlar®/ modacrylic/fibreglass knit
COATING: Sponge neoprene
GRIP: Smooth

REF.	SIZE	LENGTH
240	7/S	233mm
240	8/M	260mm
240	9/L	280mm
240	10/XL	285mm
240	11/XXL	290mm

Cat. III — EN 388:2016 — EN 407
2777 — 3X31C — 42212X

CUT LEVEL D

DuPont™ Kevlar®

SHOWA

4561

Sponge nitrile palm coating over engineered liner with Kevlar®

BENEFITS: Combination of oil grip technology and cut resistance

- **A light, elastic low-lint glove, resistant to deformation**
- **Nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **Provides grip performance in oily circumstances with high abrasion resistance**
- **Engineered fibres knitting provides cut protection level D**
- **Excellent level of dexterity and tactility**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and continuous wear**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:

Automotive
Engineering
Glass
Manufacturing
Mechanical
Metallurgy

FEATURES

LINER: Seamless knit Kevlar®
COATING: Sponge nitrile
GRIP: Sponge

REF.	SIZE	LENGTH
4561	6/S	220mm
4561	7/M	230mm
4561	8/L	240mm
4561	9/XL	250mm
4561	10/XXL	260mm

Cat. II | EN 388:2016 4X32D | EN 407 X2XXXX

SHOWA

234

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

BENEFITS: Resilient food-safe glove offering excellent grip and cut protection in dry & greasy environments

- **Strong cut resistance performance - EN 388 level D**
- **Foam nitrile coating protects against oils, hydrocarbons, grease and abrasions, while offering excellent grip in wet and dry conditions**
- **FDA & EU Food contact approved**
- **Cooling HPPE properties and breathable back of hand reduces perspiration and keeps hands dry**
- **Thin and lightweight for enhanced dexterity and longer use**
- **Launderable for multiple use, less waste and cost efficiency**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Automotive
Construction
Food
Glass
Municipal Services
Warehousing

FEATURES

LINER: 15 gauge seamless knit spandex/ engineered yarn with HPPE
COATING: Nitrile
GRIP: Foam
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
234	6/S	220mm
234	7/M	230mm
234	8/L	250mm
234	9/XL	260mm
234	10/XXL	270mm

Cat. II | EN 388:2016 4X42D | EN 407 X2XXXX

SHOWA

234X

Uncoated spandex/ engineered cut resistant liner reinforced with HPPE

BENEFITS: Comfortable food-safe glove with high cut resistance performance and flexibility

- **Strong cut resistance performance - EN 388 level D**
- **Cooling and breathable HPPE properties reduce perspiration and keep hands dry**
- **Designed for use in "knife hand" applications in food processing & food service industries**
- **Ambidextrous and launderable for multiple use, less waste and cost reduction**
- **Perforated tag can be removed easily without tearing or damaging the glove**
- **An ideal inner glove for extra cut protection**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Automotive
Construction
Food
Glass
Mechanical

FEATURES

LINER: 15 gauge seamless knit spandex/ engineered yarn with HPPE
COATING: Uncoated
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
234X	6/S	254mm
234X	7/M	264mm
234X	8/L	274mm
234X	9/XL	294mm
234X	10/XXL	314mm

Cat. II | EN 388:2016 1X41D | EN 407 X1XXXX

CUT LEVEL D

SHOWA

S-TEX 541

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

BENEFITS: Better advanced cut protection performance

- **Excellent cut resistance performance due to engineered fibre**
- **PU coating provides high abrasion resistance and excellent grip**
- **Open back design with breathable palm keeps the hand comfortable and dry**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:
Automotive
Construction
Electronics
Processing
Logistics
White goods
Glass and glazing

FEATURES
LINER: 13 gauge seamless knit stainless steel/polyester
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
S-TEX 541	6/S	220mm
S-TEX 541	7/M	230mm
S-TEX 541	8/L	240mm
S-TEX 541	9/XL	265mm
S-TEX 541	10/XXL	275mm

Cat. II EN 388:2016 4X41D

SHOWA

S-TEX 300

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

BENEFITS: Patented fibre for advanced cut protection

- **Excellent cut resistance performance due to engineered fibre**
- **A comfortable, supple glove providing effective resistance to abrasion**
- **Surface provides performant grip**
- **Wrist well protected**
- **High visibility**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and extended wear**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:
Glass handling
Bottling
Sheet metal
Internal fixing
Metallurgy

FEATURES
LINER: 10 gauge seamless knit stainless steel/polyester
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Formerly S-TEX GP1

Cat. II EN 388:2016 2X43D

SHOWA

S-TEX 350

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

BENEFITS:

- **Excellent cut resistance performance due to engineered fibre**
- **Nitrile protects the hand from oils, hydrocarbons, grease and abrasion**
- **Effective long lasting grip in oil**
- **Wrist well protected**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and continuous wear**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:
Automotive
Construction
Internal fixing
Bottling
Metallurgy

FEATURES
LINER: 10 gauge seamless knit stainless steel/polyester
COATING: Nitrile
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
S-TEX 350	7/S	230mm
S-TEX 350	8/M	250mm
S-TEX 350	9/L	260mm
S-TEX 350	10/XL	270mm

Formerly S-TEX GP2

Cat. II EN 388:2016 3X43D

SHOWA S-TEX 376

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

SHOWA S-TEX 377

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

BENEFITS: Excellent cut protection performance combined with long lasting grip

- **Nitrile coating with a second foamed nitrile coating provides high abrasion resistance EN 388 level 4**
- **Protects the hand from oils, hydrocarbons, grease and abrasion, with long lasting grip performance under wet and oily conditions**
- **Anatomical design replicates the natural curvature of the human hand and thus reduces hand fatigue, increasing productivity and dexterity**
- **Seamless knitting gives no irritation**
- **Liquid-proof to end of coated area**

APPLICATIONS:
Aerospace
Agriculture
Construction
Engineering
Glass
Manufacturing
Mechanical

FEATURES
LINER: 13 gauge seamless knit stainless steel/polyester
COATING: Nitrile/nitrile foam
GRIP: Foam
+: Ergonomic design hand mould that replicates the natural curves

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

REF.	SIZE	LENGTH
S-TEX 377	6/S	220mm
S-TEX 377	7/M	240mm
S-TEX 377	8/L	250mm
S-TEX 377	9/XL	260mm
S-TEX 377	10/XXL	270mm

Cat. II EN 388:2016 4X41D

Cat. II EN 388:2016 4X41D

SHOWA S-TEX 376SC

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

SHOWA S-TEX 377SC

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

BENEFITS: Easy to remove with excellent cut protection performance and lasting grip

- **Excellent cut resistance performance due to engineered fibre**
- **Nitrile coating with a second foamed nitrile on palm provides high abrasion resistance EN 388 level 4**
- **Protects the hand from oils, hydrocarbons, grease and abrasions, with long lasting grip performance under wet and oily conditions**
- **Strong, sturdy cuff that extends protection to the wrist, while enabling quick and easy removal in case of emergency**
- **Liquid-proof to end of coated area**
- **Anatomical design that replicates the natural curves of the human hand, thereby reducing hand fatigue and increasing productivity**
- **Seamless knitting prevents irritation**

APPLICATIONS:
Automotive
Glass
Manufacturing
Metal Stamping
Public Utilities
Recycling

FEATURES
LINER: 13 gauge seamless knit stainless steel/polyester
COATING: Nitrile/nitrile foam
GRIP: Foam
+: Safety cuff for extended wrist protection and easy removal

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

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

Cat. II EN 388:2016 4X41D EN 407:2004 X1XXXX

Cat. II EN 388:2016 4X41D EN 407:2004 X1XXXX

CUT LEVEL E

DuPont™ Kevlar®

SHOWA

S-TEX 581

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

BENEFITS: Lightweight glove with high cut protection performance

- **Excellent cut resistance performance due to engineered fibre**
- **Embossed nitrile palm finish disperses oil away to increase grip and longevity in light oily environments**
- **Foam nitrile coating provides an abrasion resistance level of 5 and extended usage**
- **Microporous nitrile coating grants exceptional grip while allowing warm air and moisture from inside to escape, keeping your hands dry**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and continuous wear**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Construction
Automotive
Stamping
Masonry
Glass and glazing
Bottling
Metallurgy

FEATURES

LINER: 13 gauge seamless knit stainless steel/polyester with Kevlar®
COATING: Foam nitrile
GRIP: Embossed
+: Ergonomic design that replicates the natural curvature of the hand

REF.	SIZE	LENGTH
S-TEX 581	6/S	235mm
S-TEX 581	7/M	245mm
S-TEX 581	8/L	260mm
S-TEX 581	9/XL	265mm
S-TEX 581	10/XXL	270mm

Cat. II | EN 388:2016 | 4X42E

SHOWA

3416

Full neoprene coating over engineered cut protective liner

BENEFITS: Premium combination of mechanical, chemical and cut protection

- **Neoprene protects against a wide range of chemicals including acids, caustics, solvents, greases and oils**
- **Cut protection EN 388 level E**
- **Rough particle palm finish offers good resistance to abrasion and maintained grip**
- **Flexible neoprene coating provides great comfort and dexterity**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Metallurgy
Chemical bases, acids
Petrochemical
Offshore
Oil & Gas

FEATURES

LINER: 13 gauge seamless knit HPPE
COATING: Neoprene
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III | EN 388:2016 | EN374-5:2016 | EN 374-1:2016/ Type A
0321 | 3X43E | AJKLMT

SHOWA

8110

Uncoated HPPE yarn

BENEFITS: Ambidextrous cut level E

- **High cut performance yarn**
- **Optimal dexterity and tactile feel retained**
- **Ambidextrous; can be worn on either hand**
- **Fully launderable, with effective comfort and durability**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:

Food
Construction
Glass handling

FEATURES

LINER: 10 gauge seamless knit HPPE
COATING: Uncoated

REF.	SIZE	LENGTH
8110	6/XS	240mm
8110	7/S	260mm
8110	8/M	280mm
8110	9/L	300mm
8110	10/XL	320mm

Cat. II | EN 388:2016 | 2X43E

CUT LEVEL F

SHOWA

8127

Uncoated HPPE yarn

BENEFITS: Ambidextrous cut level F

- **High cut performance yarn**
- **Optimal dexterity and tactile feel retained**
- **Ambidextrous; can be worn on either hand**
- **Fully launderable, with effective comfort and durability**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:
Food
Construction
Glass handling

FEATURES
LINER: 7 gauge seamless knit HPPE
COATING: Uncoated

REF.	SIZE	LENGTH
8127	6/XS	240mm
8127	7/S	260mm
8127	8/M	280mm
8127	9/L	300mm
8127	10/XL	320mm

Cat. II EN 388:2016 2X41F

SHOWA

257

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

BENEFITS: Surprisingly soft and flexible glove that can withstand the highest level of cuts and lacerations

- **Exceptional cut resistant performance - EN 388 level F**
- **Foam nitrile coating protects palm & fingers from abrasions, snags & punctures, while offering optimum grip in both dry & oily applications**
- **Plated-knit liner avoids scratchy fibres touching the skin, for long-lasting comfort**
- **Excellent dexterity thanks to flexible properties of spandex**
- **Lightweight, with breathable open back design that reduces sweat and keeps hands dry**
- **Launderable for multiple use, less waste and cost efficiency**

APPLICATIONS:

Automotive	Manufacturing
Construction	Mechanical
Glass	Metallurgy

FEATURES
LINER: 13 gauge plated-knit spandex/ aramid/ stainless steel
COATING: Nitrile
GRIP: Sponge
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
257	6/S	241mm
257	7/M	248mm
257	8/L	260mm
257	9/XL	273mm
257	10/XXL	270mm

Cat. II EN 388:2016 4X42F EN 407 X2XXXX

SHOWA

257X

Uncoated spandex liner reinforced with stainless steel and aramid

BENEFITS: Uncoated soft and flexible glove with cut level F protection

- **Exceptional cut resistant performance**
- **Seamless, plated-knit liner avoids scratchy fibres touching the skin, for long-lasting comfort**
- **Excellent dexterity thanks to flexible properties of spandex**
- **Lightweight, breathable liner that reduces sweat and keeps hands dry**
- **An ideal inner glove for extra cut protection**
- **Ambidextrous and launderable for multiple use, less waste and cost reduction**

APPLICATIONS:

Automotive	Manufacturing
Bottling	Mechanical
Glass	Metal Stamping

FEATURES
LINER: 13 gauge plated-knit spandex/ aramid/ stainless steel
COATING: Uncoated
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
257X	6/S	254mm
257X	7/M	264mm
257X	8/L	274mm
257X	9/XL	284mm
257X	10/XXL	294mm

Cat. II EN 388:2016 4X42F EN 407 X1XXXX

DuPont™ Kevlar®

SHOWA

S-TEX KV3

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

BENEFITS: Highest cut resistance protection

- **Excellent cut resistance performance due to engineered fibre**
- **Latex protects the hand in damp environments**
- **Wrist well protected**
- **Surface provides tactile feel and better grip**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and continuous wear**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:
Metallurgy
Stamping
Glass and glazing

FEATURES
LINER: Seamless knit stainless steel/polyester with Kevlar®
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II EN 388:2016 3X44F

CHEMICAL PROTECTION

To protect the hands from direct contact with oils, hydrocarbons, acids and corrosive substances, we provide the solutions to whatever conditions you may be working in. Our chemical resistance guide and website www.chemrest.com features chemical permeation and testing information for over 300 individual chemicals.

ChemRest

"In a couple of clicks I can find exactly what I am looking for!"
– **Gloria from TN**

"ChemRest has the largest chemical data base that I have ever seen!"
– **Isaac from NY**

ChemRest
Chemical Resistant Glove Directory

KNOW YOU'RE PROTECTED

NO ASSUMPTIONS ARE ALLOWED WHILE DEALING WITH HAZARDOUS CHEMICALS.

The risks associated with chemical substances are numerous and their contact with the skin can cause burns, dermatitis, irritation and intoxication. The skin can be greatly damaged by such contact and wearing gloves is the only barrier that prevents hazardous contact with chemicals.

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:

1. **A user-friendly chemical directory with 300 chemicals available**
2. **Free (on demand) testing for additional chemicals**
3. **Access to expert chemical data and resources in one place**
4. **Dedicated technical support**
5. **Cost-effective hand protection solution thanks to the accurate chemical glove selection and recommendations**

HOW TO USE CHEMREST

STEP 1:

Visit ChemRest.com. Then 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 4:

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

STEP 5:

Register for your free account and download your chemical data.

30% of hand injuries are caused by wearing the wrong glove

U.S. Bureau of Labor Statistics 2012

See how ChemRest makes finding the right glove easy and convenient.

Visit www.ChemRest.com or call our chemical experts on +1 800 241 0323

NITRILE

SHOWA

707D

Unsupported full nitrile coating with tractor tread finish unlined

BENEFITS: Tactile feel retained for optimal dexterity

- **Nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **Tractor tread grip for assured grip**
- **Can be used once or re-used**
- **Easy to put on and remove, lint-free, dust-free**
- **A thin, light glove with a "second skin" feel**
- **Designed for easy movement and extended wear**
- **EU Food approved**

APPLICATIONS:
Food handling
Chemical
Laboratory and pharmaceutical
Cleaning

FEATURES
LINER: Unlined
COATING: Nitrile
THICKNESS: 0.23mm
GRIP: Embossed
+: Food safe approved

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

Cat. III · 2777 · 374-5:2016 · 374-1:2016/ Type A · JKLOPT

SHOWA

707FL

Cotton flock lined nitrile gauntlet with tractor tread finish

APPLICATIONS:
Food handling
Chemical sampling
Laboratory and pharmaceutical
Cleaning

FEATURES
LINER: Cotton flocked
COATING: Nitrile
THICKNESS: 0.28mm
GRIP: Embossed
+: Food safe approved

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

Cat. III · 2777 · 374-5:2016 · 374-1:2016/ Type A · JKLOPT

SHOWA

707HVO

Unsupported, unlined, biodegradable nitrile engineered with EBT® technology

BENEFITS: Thin, light glove that fits like a "second skin"

- **Protects against oils, hydrocarbons, grease and chemicals**
- **Fluorescent orange colour increases visibility**
- **Long-lasting grip**
- **Impermeable for working in damp or greasy environments**
- **Cuff prevents dirt from entering the glove**
- **Easy to put on and remove**
- **Lint-free and dust-free**

APPLICATIONS:
Chemical
Food
Janitorial
Laboratory
Municipal Services
Pharmaceutical

FEATURES
LINER: Unsupported
COATING: Biodegradable nitrile
THICKNESS: 0.23mm
GRIP: Bisque finish
+: Food safe approved

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

Cat. III · 2777 · EN 388:2016 · 1000X · EN ISO 374-5:2016 · EN ISO 374-1:2016/ Type A · JKLOPT

SHOWA

720R

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

BENEFITS: Optimal dexterity with high chemical resistance

- **A fine, supple glove (1.10mm thick)**
- **Rough finish offering high chemical resistance and excellent resistance to abrasion**
- **Nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **Optimized grip for tasks that require manual exertion and complete control over tools**
- **A light, elastic low-lint glove, resistant to deformation**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:
Chemical industry
Alkaline components
Construction
Food
Painting
Petrochemical

FEATURES
LINER: Seamless knit polyester/nylon
COATING: Nitrile
THICKNESS: 1.10mm
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
720R	7/S	300mm
720R	8/M	300mm
720R	9/L	300mm
720R	10/XL	320mm
720R	11/XXL	320mm

Cat. III | EN 388:2016 3132X | EN 374-5:2016 | EN 374-1:2016/ Type B JKL | 0120

SHOWA

771

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

BENEFITS: High chemical and grip resistance

- **A very fine, supple glove (0.50mm thick) with a rough palm finish**
- **Nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **Achieves the highest level of resistance to chemicals and abrasion/ Offers a high level of resistance to chemicals and abrasion**
- **A flexible, robust glove offering great dexterity and with good resistance to tearing**
- **Extended protection on the forearm**

APPLICATIONS:
Chemical handling
Oil-based applications
Petrochemical
Alkaline components

FEATURES
LINER: Cut and sewn cotton/polyester
COATING: Nitrile
THICKNESS: 0.50mm
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III | EN 388:2016 4111X | EN 374-5:2016 | EN 374-1:2016/ Type B JKL | 0120

SHOWA

772

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

APPLICATIONS:
Chemical handling
Oil-based applications
Petrochemical
Alkaline components

FEATURES
LINER: Cut and sewn cotton/polyester
COATING: Nitrile
THICKNESS: 0.50mm
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III | EN 388:2016 4111X | EN 374-5:2016 | EN 374-1:2016/ Type B JKL | 0120

SHOWA 708

FOOD-SAFE AMBIDEXTROUS NITRILE GLOVES

LIKE A FISH TO WATER!

SHOWA 708 HYBRID TAKES YOU WHERE SAFETY AND COMFORT MEET

At SHOWA we strive to protect what's important, which is why we've introduced the SHOWA 708: a lightweight and strong nitrile glove specifically designed to combat the risks within the food sector, keeping products safe from contamination and hands safe from harm.

The special organic formulation makes SHOWA 708 safe for contact with all food categories in short term repeated contact situations. The glove is liquid proof and ideal for use with fatty and oily foods. It conforms to the shape of the hand, creating a comfortable second-skin feeling for extended use during precise manual operations. Due to its increased thickness and nitrile properties, the 708 provides exceptional resistance to tears and chemicals. The grip pattern creates a webbing that runs through the glove, reinforcing the strength and durability.

The winning combination of exceptional grip, durability and mild material properties makes manual tasks within the food industry using SHOWA 708 comfortable and much safer for both the wearer as well as the product that is being handled.

WHY IS BLUE IMPORTANT?

According to Hazard Analysis and Critical Control Points practices, PPE gloves in food handling should be blue because the colour is not found in food. This means that any broken piece can be identified immediately, thus eliminating risk of contamination.

SPECS

For professionals working in food handling processes, who need strong grip in wet and fatty food environments while eliminating food contamination, our SHOWA 708 is a food-safe blue ambidextrous nitrile glove with a patented grip far superior to traditional single-use gloves. The 0.23mm thickness and unique fish scale pattern provides exceptional durability against wear and tear, while maintaining optimum dexterity and grip with fatty foods.

This SHOWA 708 nitrile hybrid glove, unlike latex and vinyl, has a high chemical resistance, is non-allergen and provides both hands and products excellent protection against food processing risks.

BENEFITS:

+ Superior fish scale grip inside and out for safer, extended handling in messy, wet and oily conditions
+ Fingertip and inner-thumb texturing provides user with excellent grip and tactility to prevent accidents and unintended damage while reducing hand fatigue
+ High dexterity makes the glove suitable for use with all food categories in situations where there is short term, repeated contact
+ Unflocked to prevent the risk of food contamination
+ Thicker nitrile compound provides exceptional resistance to chemicals
+ Webbing in the glove from the grip pattern provides extra strength against tears
+ Ambidextrous ergonomic shape for quick and easy donning and waste reduction
+ Lightweight with stretch formula nitrile a comfortable, second-skin feeling
+ Beaded cuff adds to tear resistance and prevents droplets travelling beyond the glove
+ Blue colour allows immediate identification of broken pieces, eliminating any risk of contamination (as per HACCP)
+ Fully compatible with other PPE, such as uncoated cut resistant gloves

FEATURES:

+ Fish scale pattern grip
+ Food-safe organic formulation and blue colour
+ Ambidextrous
+ 100% nitrile, latex-free and unflocked
+ Beaded cuff
+ Liquid-proof
+ 300mm long and 0.23mm thick
+ Strong chemical resistance EN ISO 374-1 : JKOPT

APPLICATIONS

- Poultry, meat & seafood processing
- Dairy production
- Fruit & vegetable processing
- Food packing and handling
- Sanitation and dishwashing
- Bakeries & delicatessens
- Agriculture
- Catering and food service
- Drinks production and handling
- Grain, mill and starch products
- HoReCa
- Janitorial/Cleaning
- Light assembly of oil-coated pieces

AVAILABLE SIZES

REF.	SIZE	LENGTH
708	7/S	300mm
708	8/M	300mm
708	9/L	300mm
708	10/XL	300mm
708	11/XXL	300mm
708	12/XXXL	300mm

Cat. III
CE 0321
EN 374-5:2016 VIRUS
EN ISO 374-1:2016/ Type B JKOPT

NITRILE

SHOWA
727

Unsupported, full nitrile coating with textured finish

BENEFITS: Tactile feel retained for optimal dexterity

- **Provides good mechanical protection and chemical resistance against a broad range of solvents, oils, animal fats and other chemicals**
- **Nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **The bisque finish offers a good grip and secure handling**
- **Wrist well protected**
- **Designed for easy movement and extended wear**
- **A thin, light glove with a "second skin" feel**
- **Chlorinated**
- **Not contain silicones**

APPLICATIONS:
Public sector
Solvent
Automotive
Chemical
Oil-based

FEATURES
LINER: Unsupported
COATING: Nitrile
THICKNESS: 0.38mm
GRIP: Bisque
+: EU Food safe approved

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

Cat. III 2777 | EN 388:2016 2001X | EN 374-5:2016 | EN 374-1:2016/ Type A JKLOPT

SHOWA
730

Unsupported full nitrile coating with textured finish over cotton flocked liner

APPLICATIONS:
Public sector
Solvent
Automotive
Chemical
Oil-based

FEATURES
LINER: Unsupported, cotton flocked
COATING: Nitrile, not chlorinated
THICKNESS: 0.38mm
GRIP: Bisque
+: EU Food safe approved

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

Cat. III 2777 | EN 388:2016 2001X | EN 374-5:2016 | EN 374-1:2016/ Type A JKLOPT

SHOWA
737

Unsupported, nitrile coating with textured finish

APPLICATIONS:
Public sector
Solvent
Automotive
Chemical
Oil-based

FEATURES
LINER: Unsupported
COATING: Nitrile
THICKNESS: 0.56mm
GRIP: Bisque
+: EU Food safe approved

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

Cat. III 2777 | EN 388:2016 3001X | EN 374-5:2016 | EN 374-1:2016/ Type A JKLOPT

SHOWA

747

Unsupported, full nitrile coating with textured finish

APPLICATIONS:
Public sector
Solvent
Automotive
Chemical
Oil-based

FEATURES
LINER: Unsupported
COATING: Nitrile
THICKNESS: 0.56mm
GRIP: Bisque
+: EU Food safe approved

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

Cat. III | EN 388:2016 | EN 374-5:2016 | EN 374-1:2016/ Type A
2777 | 3001X | JKLOPT

SHOWA

379

Dual nitrile coating technology, fully dipped with extra nitrile foam coating finish over polyester liner

BENEFITS: Advanced chemical protection with grip performance

- **Enhanced chemical protection**
- **Nitrile coating provides protection from chemical, oils, hydrocarbons, grease and hexavalent chromium found in concrete**
- **Foamed nitrile finish provides excellent grip performance and prevents slipping**
- **A flexible, robust glove offering good resistance to abrasion**
- **EN 374-5:2016 Chemical protection certified**
- **Unique design for fit and dexterity**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:
Chemical
Construction
Maritime sector
Petrochemical
Oil & Gas
Refining

FEATURES
LINER: 13 gauge seamless knit polyester/ cotton
COATING: Nitrile/foam nitrile
GRIP: Foam
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
379	8/M	300mm
379	9/L	305mm
379	10/XL	320mm
379	11/XXL	325mm

Cat. III | EN 388:2016 | EN 374-5:2016 | EN 374-1:2016/ Type B
0120 | 4122X | JKL

SHOWA

NSK 26

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

BENEFITS:

- **Double nitrile coating provides an excellent chemical and abrasion resistance to the whole arm (620+mm long)**
- **Nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **Impermeable for working in damp or greasy environments**
- **Extended gauntlet for upper arm protection**
- **Provides easy movement and extended wear**
- **Cotton liner absorbs perspiration and adds comfort**
- **No latex allergy risks**
- **EU Food safe approved**

APPLICATIONS:
Food handling
Chemical
Oil-based
Fishing
Agriculture
Petrochemical

FEATURES
LINER: Seamless knit cotton/polyester
COATING: Nitrile
GRIP: Rough
+: Extended protection to the shoulder

REF.	SIZE	LENGTH
NSK 26	8/S	620mm
NSK 26	9/M	630mm
NSK 26	10/L	640mm
NSK 26	11/XL	650mm

Cat. III | EN 388:2016 | EN 374-5:2016 | EN 374-1:2016/ Type B
0120 | 4111X | JKL

BIODEGRADABLE NITRILE

SHOWA

707HVO

Unsupported, unlined, biodegradable nitrile engineered with EBT® technology

BENEFITS: Thin, light glove that fits like a "second skin"

- **Protects against oils, hydrocarbons, grease, and abrasion**
- **Fluorescent orange colour increases visibility**
- **Long-lasting grip**
- **Impermeable for working in damp or greasy environments**
- **Cuff prevents dirt from entering the glove**
- **Easy to put on and remove**
- **Lint-free and dust-free**

APPLICATIONS:

Chemical
Food
Janitorial
Laboratory
Municipal Services
Pharmaceutical

FEATURES

LINER: Unsupported
COATING: Biodegradable nitrile
THICKNESS: 0.23mm
GRIP: Bisque finish
+: Food safe approved

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

Cat. III · 2777 | EN 388:2016 · 1000X | EN ISO 374-5:2016 | EN ISO 374-1:2016/Type A · JKLOPT

SHOWA

731

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

BENEFITS: Chemical protection engineered with EBT®

- **High protection against solvents and acids**
- **Impermeable for working in wet, greasy and oily environments**
- **World's first biodegradable chemical resistant glove**
- **Textured finish provides better grip**
- **Excellent precision for handling small parts**
- **Product biodegrades when placed in an active landfill due to EBT® technology**

APPLICATIONS:

Petrochemical
Manufacturing
Refinery operations
Agriculture
Janitorial
Automotive

FEATURES

LINER: Cotton flocked
COATING: Biodegradable nitrile
THICKNESS: 0.38mm
GRIP: Embossed

REF.	SIZE	LENGTH
731	7/S	355mm
731	8/M	355mm
731	9/L	355mm
731	10/XL	355mm
731	11/XXL	355mm

Cat. III · 2777 | EN 388:2016 · 2001X | EN ISO 374-5:2016 | EN 374-1:2016/Type A · JKLOPT

SHOWA

NSK 24

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

BENEFITS:

- **Double nitrile coating provides an excellent chemical and abrasion resistance to the forearm (350mm long)**
- **Nitrile protects the hand from oils, hydrocarbons and grease penetration**
- **Impermeable for working in damp or greasy environments**
- **Provides easy movement and extended wear**
- **Cotton liner absorbs perspiration and adds comfort**
- **No latex allergy risks**
- **EU Food safe approved**
- **Product biodegrades when placed in an active landfill due to EBT® technology**

APPLICATIONS:

Food
Chemical
Oil-based
Fishing
Agriculture
Petrochemical

FEATURES

LINER: Seamless knit cotton
COATING: Biodegradable nitrile
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
NSK 24	8/S	350mm
NSK 24	9/M	360mm
NSK 24	10/L	360mm
NSK 24	11/XL	360mm

Cat. III · 2777 | EN 388:2016 · 4112X | EN 374-5:2016 | EN 374-1:2016/Type A · JKLOPT

PROTECTION AND PRESERVATION IN ONE

Sustainability isn't just a commitment - it's part of SHOWA's legacy. Our revolutionary Eco Best Technology® (EBT®) is the innovation that gave rise to the world's first biodegradable nitrile glove. EBT® uses organic materials that accelerate the biodegradation of nitrile in active landfills.

BIODEGRADABLE IN 1-5 YEARS

REDUCED ENVIRONMENTAL IMPACT

TESTED ASTM D5526 ASTM D5511

SAME PERFORMANCE, QUICKER DEGRADATION*

BIODEGRADATION PROCESS

EBT® Materials → **Glove Disposal** → **Decomposition by microorganisms within 1-5 years** → **SHOWA EBT® Nitrile** (1-5 YEARS) / **COMPETITOR Nitrile** (100+ YEARS) → **SHOWA Natural Output** (NATURAL SOIL MIX)

MAKE THE COMPARISON

Paper **2-5 months**

Orange or Banana peels **2-6 months**

Cotton T-shirt **6 months**

SHOWA EBT® nitrile gloves **1-5 years**

Plastic-coated paper cartons **5 years**

Leather glove **50 years**

Tin cans **80-100 years**

Traditional disposable nitrile gloves **100+ years**

Plastic bags **500+ years**

Glass bottle **4000+ years**

* when disposed in active landfills. Actual time may vary depending on climate and location of disposal.

NEOPRENE

SHOWA

6781R

Full neoprene coating over cotton jersey liner

BENEFITS: Chemical and heat resistant

- **Neoprene coating provides resistance to abrasion and a wide range of chemicals**
- **Protects the hand from oils, hydrocarbons and grease penetration**
- **Provides a high mechanical resistance while insulating against heat and cold**
- **Insulation against intermittent heat up to 100°C**
- **Wrist well protected**
- **Minimal allergy risks**

APPLICATIONS:
Chemical
Petrochemical
Automotive
Metallurgy

FEATURES
LINER: Cut and sewn cotton
COATING: Neoprene
GRIP: Rough

REF.	SIZE	LENGTH
6781R	10/L	305mm

Cat. III 2777 | EN 388:2016 3121X | EN 374-5 :2016 | EN 374-1:2016/ Type A AJKLMT | EN 407 3132XX | EN 511 11X

SHOWA

CHM

Unsupported latex/ neoprene coating with embossed grip over cotton flocked liner

BENEFITS: Double dipped for long lasting resistance

- **Resistant to a broad range of chemicals, this gloves features a neoprene-over-natural rubber latex layering that also provides excellent abrasion, tear and puncture resistance**
- **Impermeable for working in damp or greasy environments**
- **A self-flushing tractor-tread grip encourages the run off of fluids enhancing grip effectiveness**

APPLICATIONS:
Petrochemical
Chemical industry
Janitorial
Automotive

FEATURES
LINER: Cotton flocked
COATING: Neoprene on latex
THICKNESS: 0.66mm
GRIP: Embossed

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

Cat. III 2777 | EN 388:2016 2021X | EN 374-5:2016 | EN 374-1:2016/ Type A AKLMNT

SHOWA
3415

Full neoprene coating over polyester liner

BENEFITS: Flexible Neoprene coating with rough particle finish

- **Innovative neoprene coating offers great flexibility, comfort and dexterity**
- **Fully coated neoprene gauntlet**
- **Rough particle finish offers good resistance to abrasion**
- **Seamless knit designed to prevent irritation**
- **Low-soil colour**
- **No latex allergy risks**

APPLICATIONS:
Solvents & Caustics
Small parts handling
Refining operations
Offshore
Oil & Gas

FEATURES
LINER: 15 gauge seamless knit polyester
COATING: Neoprene
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III | EN 388:2016 | EN 374-5:2016 | EN 374-1:2016/ Type A
CE 2777 | 3031X | AJKLMT

Cut Level E

SHOWA
3416

Full neoprene coating over engineered cut resistant liner

BENEFITS:

- **Neoprene protects against a wide range of chemicals including acids, caustics, solvents, greases and oils**
- **Flexible neoprene coating provides great comfort and dexterity**
- **Rough particle finish offers good resistance to abrasion**
- **SHOWA 3416 offers cut protection EN 388 level E**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:
Metallurgy
Chemical bases, acids
Petrochemical
Recycling

FEATURES
LINER: 13 gauge seamless knit HPPE
COATING: Neoprene
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III | EN 388:2016 | EN 374-5:2016 | EN 374-1:2016/ Type A
CE 2777 | 3X43E | AJKLMT

CHEMICAL RESISTANCE GUIDE
SHOWA 3415 AND 3416

CHEMICAL AGENT	CAS Number	TTP
ACETONE	67-64-1	15
ACETALDEHYDE	75-07-0	9
BENZENE	71-43-2	23
BUTANONE	78-93-3	16
BUTANONE OXIME	96-29-7	>480
CYCLOHEXANOL	108-93-0	>480
CYCLOHEXANONE	108-94-1	107
CYCLOHEXANE	110-82-7	146
DIBK	108-83-8	103
ETHANOL	64-17-5	>480
HEPTANE	142-82-5	>480
HEXANE	110-54-3	>480
HYDROCHLORIC ACID, 37%	7647-01-0	>480
HYDROFLUORIC ACID, 48%	7664-39-3	>480
ISOPROPYL ALCOHOL	67-63-0	>480
MEK	78-93-3	16
METHANOL	67-56-1	230
METHYL ETHYL KETONE	78-93-3	16
METHYL ISOPROPYL KETONE	563-80-4	12
METHYLENE CHLORIDE	75-09-2	8
OLEUM	8014-95-7	180
PENTANE	109-66-0	332
PHENOL	108-95-2	400
SODIUM HYDROXIDE, 50%	1310-73-2	>480
SULFURIC ACID, 96%	7664-93-9	285
TETRACHLOROETHYLENE	127-18-4	103
TOLUENE	108-88-3	4
TOLUENE DIISOCYANATE	584-84-9	23
XYLENE	1330-20-7	51

SEE MORE ON PAGE 104.

PVC

SHOWA
610

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

BENEFITS: Flexible chemical resistant glove

- **PVC seals and protects the hand against chemicals while remaining flexible**
- **Impermeable for working in damp or greasy environments**
- **Rough finish enable to objects securely**
- **Provides good mechanical resistance**
- **Excellent level of dexterity and tactility**
- **Designed for easy movement and extended wear**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:
Maritime sector
Painting
Construction
Chemical industry

FEATURES
LINER: 13 gauge seamless knit cotton
COATING: PVC
THICKNESS: 1.10mm
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III · EN 388:2016 · EN 374-5:2016 · EN 374-1:2016/Type C
CE 0120 · 3121X

SHOWA
620

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

APPLICATIONS:
Maritime sector
Painting
Construction
Chemical industry

FEATURES
LINER: 13 gauge seamless knit cotton
COATING: PVC
THICKNESS: 1.10mm
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
620	8/M	300mm
620	9/L	300mm
620	10/XL	300mm
620	11/XXL	300mm
620	9/L	340mm
620	10/XL	360mm
620	11/XXL	360mm

Cat. III · EN 388:2016 · EN 374-5:2016 · EN 374-1:2016/Type C
CE 0120 · 3121X

SHOWA
640

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

APPLICATIONS:
Maritime sector
Painting
Construction
Chemical industry

FEATURES
LINER: 13 gauge seamless knit cotton
COATING: PVC
THICKNESS: 1.10mm
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III · EN 388:2016 · EN 374-5:2016 · EN 374-1:2016/Type C
CE 0120 · 3121X

SHOWA

650

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

BENEFITS: Available in 4 lengths from 250mm to 660mm

- **PVC seals and protects the hand against chemicals while remaining flexible**
- **Impermeable for working in damp or greasy environments**
- **Ultra-supple and waterproof glove with a rough finish**
- **High abrasion resistance - EN 388 level 4**
- **Comfortable and soft, allows objects to be gripped firmly**
- **Designed for easy movement and extended wear**
- **A flexible, soft glove that absorbs perspiration for comfort**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Chemical industry
Construction
Metallurgy
Fishing & agriculture
Painting
Public works
Petrochemical

FEATURES
LINER: 13 gauge seamless knit cotton
COATING: PVC
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III 0120 | EN 388:2016 4121X | EN 374-5:2016 | EN 374-1:2016/ Type B JKL

SHOWA

660

Full PVC coating with extra rough finish over cotton liner

APPLICATIONS:

Chemical industry
Construction
Fishing & agriculture
Metallurgy
Painting
Public works
Petrochemical

FEATURES
LINER: 13 gauge seamless knit cotton
COATING: PVC
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

AVAILABLE IN VARIOUS LENGTHS: 30CM, 34CM, 36CM

REF.	SIZE	LENGTH
660	8/M	300mm
660	9/L	300mm
660	10/XL	300mm
660	11/XXL	300mm
660	9/L	340mm
660	10/XL	360mm
660	11/XXL	360mm

Cat. III 0120 | EN 388:2016 4121X | EN 374-5:2016 | EN 374-1:2016/ Type B JKL

SHOWA

690

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

APPLICATIONS:

Chemical industry
Construction
Fishing & agriculture
Metallurgy
Painting
Public works
Petrochemical

FEATURES
LINER: 13 gauge seamless knit cotton
COATING: PVC
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
690	8/M	660mm
690	9/L	660mm
690	10/XL	660mm
690	11/XXL	660mm

Cat. III 0120 | EN 388:2016 4121X | EN 374-5:2016 | EN 374-1:2016/ Type B JKL

PVC

SHOWA

160R

Unsupported PVC glove

BENEFITS:

- **Seals and protects the hand against chemicals while remaining flexible**
- **Impermeable for working in damp or greasy environments**
- **Excellent dexterity and tactility**
- **Surface enables a secure grip on slippery objects**
- **Extended protection on the forearm**
- **Non-powdered, "slip-on" treatment**
- **Easy to put on and remove, lint-free, dust-free**
- **A thin, light glove with a "second skin" feel**

APPLICATIONS:
Petrochemical
Janitorial
Chemical industry
Pharmaceutical & laboratory

FEATURES
LINER: Unsupported
COATING: PVC
THICKNESS: 0.30mm
GRIP: Smooth
+: Slip on treatment for easy to put on/off

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

Cat. III · 0120 · EN 388:2016 · 2000X · EN 374-5:2016 · EN 374-1:2016/ Type C

SHOWA

B0700R

Unsupported PVC glove

BENEFITS: Chemical protection with second skin feel

- **Ultra-thin, light glove with a "second skin" feel**
- **PVC seals and protects the hand against chemicals while remaining flexible**
- **Impermeable for working in damp or greasy environments**
- **Raised finished enables a secure grip on slippery objects**
- **Extended protection on the forearm**
- **Easy to put on and remove, lint-free, dust-free**
- **Designed for easy movement and extended wear**
- **Non-powdered, "slip-on" treatment**

APPLICATIONS:
Pharmaceutical
Healthcare
Electronics

FEATURES
LINER: Unsupported
COATING: PVC
THICKNESS: 0.30mm
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curvature

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

Cat. III · 0120 · EN 388:2016 · 2000X · EN 374-5:2016 · EN 374-1:2016/ Type C

SHOWA

B0710

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

APPLICATIONS:
Pharmaceutical
Healthcare
Electronics

FEATURES
LINER: Unsupported
COATING: PVC
THICKNESS: 0.30mm
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curvature

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

Cat. III · 0120 · EN 388:2016 · 2000X · EN 374-5:2016 · EN 374-1:2016/ Type C

SHOWA

660ESD

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

BENEFITS:

- **Protects objects from static electricity to avoid product damage and explosion**
- **PVC seals and protects the hand against chemicals while remaining flexible**
- **Impermeable for working in damp or greasy environments, enabling you to grip objects securely**
- **In accordance with EN 1149, vertical resistivity < 10^8 Ω**
- **Wrist well protected**
- **Designed for easy movement and extended wear**
- **A flexible, soft glove that absorbs perspiration for comfort**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Petrochemical
Automotive
Refining
Oil & Gas

FEATURES

LINER: Seamless knit cotton
COATING: PVC
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III | EN 388:2016 | EN 374-5:2016 | EN 374-1:2016/ Type A

CE 0120 | 4121X | AJKLMO

SHOWA EXPERTISE

Chemical Terms and Processes to Note

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 non-molecular level.

Breakthrough Time
The number of minutes from initial contact with a test chemical until it is first detected on the inside of the protective 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.

Heavy-Exposure
In permeation testing this term refers to constant total immersion of the protective clothing material in the test chemical which represents the worst type of heavy exposure. The ASTM F739 Test Standard and EN 374 European Test Standard refers to this type of exposure.

Intermittent Exposure
ASTM F 1383 Standard Test Method for Permeation of Liquids or Gases through Protective Clothing Materials under Conditions of Intermittent Contact. SHOWA used a contact time of 1 minute where the glove material was fully immersed and 9 minutes of purge time where the glove material was unexposed to the chemical which was repeated for 240 minutes.

BUTYL

SHOWA
874

Unlined, unsupported butyl coating

BENEFITS: Acetone and ketone resistance

- **Butyl provides superior resistance to highly corrosive acids and is excellent for handling ketones and esters**
- **This synthetic rubber also provides the highest permeation resistance to gases and water vapours**
- **A thin, light glove with a "second skin" feel provides an excellent tactility and dexterity**
- **Cuff prevents dirt from entering the glove**
- **Designed for easy movement and extended wear**

APPLICATIONS:
Chemical industry
Acetone & ketone components
Acid components
Police & army
Mustard gas protection

FEATURES
LINER: Unsupported
COATING: Butyl
THICKNESS: 0.35mm
GRIP: Smooth

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

Cat. III | EN 388:2016 | EN 374-5:2016 | EN 374-1:2016/ Type B
0299 | 0010X | | BIK

SHOWA
874R

Unlined, unsupported butyl coating with rough grip finish

APPLICATIONS:
Chemical industry
Acetone & ketone components
Acid components
Police & army
Mustard gas protection

FEATURES
LINER: Unsupported
COATING: Butyl
THICKNESS: 0.35mm
GRIP: Rough

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

Cat. III | EN 388:2016 | EN 374-5:2016 | EN 374-1:2016/ Type B
0299 | 0010X | | BIK

SHOWA
878

Unlined, unsupported butyl coating

APPLICATIONS:
Chemical industry
Acetone & ketone components
Acid components
Police & army
Mustard gas protection

FEATURES
LINER: Unsupported
COATING: Butyl
THICKNESS: 0.70mm
GRIP: Smooth

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

Cat. III | EN 388:2016 | EN 374-5:2016 | EN 374-1:2016/ Type B
0299 | 2020X | | BIK

VITON

SHOWA

890

Unlined viton over butyl coating with longue sleeves

BENEFITS: PCB and hydrocarbon resistant

- **Heavy-duty yet flexible, viton gloves were developed for the highest chemical-resistance barrier to aromatic hydrocarbons such as benzene, toluene, xylene and to most chlorinated solvents and aliphatic hydrocarbons**
- **Protects the hand from a wide array of chemical hazards**
- **Impermeable for working in damp or greasy environments**
- **Cuff prevents dirt from entering the glove**
- **Designed for easy movement and extended wear**
- **A thin, light glove with a "second skin" feel**
- **No latex allergy risks**

APPLICATIONS:
Petrochemical
Chemical industry
PCBs

FEATURES
LINER: Unsupported
COATING: Viton
THICKNESS: 0.70mm
GRIP: Smooth

REF.	SIZE	LENGTH
890	9/L	350mm
890	10/XL	350mm

Cat. III | EN 388:2016 | EN 374-5:2016 | EN 374-1:2016/ Type B
0299 | 1020X | | DFL

SHOWA

892

Unlined viton over butyl coating

APPLICATIONS:
Petrochemical
Chemical industry
PCBs

FEATURES
LINER: Unsupported
COATING: Viton
THICKNESS: 0.30mm
GRIP: Smooth

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

Cat. III | EN 388:2016 | EN 374-5:2016 | EN 374-1:2016/ Type B
0299 | 1010X | | DFL

INSULATED

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.

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.

COLD PROTECTION

SHOWA
451

Latex palm coating over acrylic/cotton/polyester liner

BENEFITS: Multipurpose winter glove

- **A comfortable, flexible glove that is very pleasant to wear in cold weather**
- **Protects the hand in damp & wet environments**
- **Surface provides tactile feel and better grip**
- **Breathable back of hand to reduce perspiration and increase comfort**
- **Designed for easy movement and extended wear**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Agriculture
Garden work
Logistics
Automotive
Construction
Public works
Warehousing
Distribution

FEATURES
LINER: Seamless knit acrylic/cotton/polyester knit
COATING: Latex
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
451	7/S	220mm
451	8/M	240mm
451	9/L	260mm

Cat. II | EN 388:2016 2241X | EN 511 010

SHOWA
460

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

BENEFITS: Combination of cold and chemical protection

- **A flexible, soft glove that absorbs perspiration, for ultra-comfortable extended wear and with good mechanical resistance**
- **PVC seals and protects the hand against chemicals while remaining flexible, up to -20 °C**
- **Impermeable for working in damp or greasy environments, enabling you to grip objects securely**
- **Extended protection on the forearm**
- **Fixed acrylic lining**
- **Designed for easy movement and continuous wear**

APPLICATIONS:

Maritime sector
Petrochemical
Transport
Fishing
Logistics

FEATURES
LINER: Seamless knit fixed acrylic lining/cotton knit
COATING: PVC
THICKNESS: 1.10mm
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III | EN 388:2016 3221X | EN 374-5:2016 | EN 374-1:2016/ Type C | EN 511 0120 121

SHOWA
465

Removable cotton/acrylic liner with full PVC coating

APPLICATIONS:

Maritime sector
Petrochemical
Transport
Logistics
Fishing

FEATURES
LINER: Seamless cotton knit and removable acrylic liner
COATING: PVC
THICKNESS: 1.10mm
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III | EN 388:2016 3221X | EN 374-5:2016 | EN 374-1:2016/ Type C | EN 511 121

SHOWA

490

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

BENEFITS: Combination of cold and chemical protection

- **A flexible, soft glove that absorbs perspiration, for ultra-comfortable extended wear and with good mechanical resistance**
- **PVC seals and protects the hand against chemicals while remaining flexible, up to -20 °C**
- **Impermeable for working in damp or greasy environments, enables a secure grip**
- **Extended protection on the forearm**
- **Fixed acrylic lining**
- **Flexible and soft PVC for ultra-comfort**
- **Designed for easy movement and continuous wear**

APPLICATIONS:

Agriculture
Construction
Marine
Mechanical
Petrochemical
Transportation

FEATURES

LINER: Seamless knit fixed acrylic lining/cotton knit
COATING: PVC
THICKNESS: 1.50mm
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

SHOWA

495

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

APPLICATIONS:

Maritime sector
Petrochemical
Transport
Logistic
Fishing

FEATURES

LINER: Seamless cotton knit and removable acrylic liner
COATING: PVC
THICKNESS: 1.50mm
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

COLD PROTECTION

SHOWA

477

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

BENEFITS: Premium combination of cold protection and oil resistant grip ideal for changeable weather conditions

- **Insulated liner provides a barrier from cold ensuring warmth and comfort all day long**
- **Fully double engineered coating protects against liquids and water penetration**
- **Impermeable for working in damp or greasy environments, keeps your hands dry**
- **Dual nitrile coating technology provides optimal grip longevity**
- **Fixed acrylic terry liner**
- **Highly flexible and resistant to abrasion and tearing**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Agriculture	Mechanical
Construction	Petrochemical
Marine	Transportation

FEATURES

LINER: Seamless knit polyester/nylon/insulated acrylic liner
COATING: Nitrile/nitrile foam
GRIP: Foam
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
477	7/M	280mm
477	8/L	280mm
477	9/XL	285mm
477	10/XXL	290mm

Cat. II | EN 388:2016 4231X | EN 511 011

SHOWA

TEMRES® 282

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

BENEFITS: Provides warmth with protection from liquids & oils in cold conditions while allowing comfort of a breathable glove

- **Insulated liner provides a barrier from cold ensuring warmth and comfort all day long**
- **TEMRES® Waterproof technology**
- **High level of handling precision and optimal grip**
- **Fixed insulated acrylic liner**
- **Premium comfort and flexibility of PU**
- **Breathable technology allows warm air and moisture from inside to escape to keep your hands dry**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Construction	Logistics
Agriculture	Transport
Offshore	Fishing

FEATURES

LINER: Seamless knit nylon/insulated acrylic
COATING: Breathable PU
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
TEMRES 282	8/M	275mm
TEMRES 282	9/L	280mm
TEMRES 282	10/XL	285mm
TEMRES 282	11/XXL	300mm

Cat. II | EN 388:2016 4221X | EN 511 021

For the first time warmth, breathability, waterproof and flexibility have all been combined into a revolutionary glove by using SHOWA's innovative technology platform.

COLD PROTECTION

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

BREATHABLE

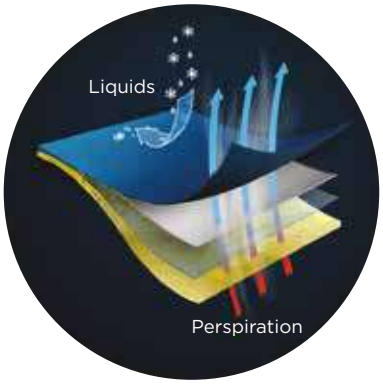
Breathable micro-ventilated TEMRES® technology: membrane fixed between coating and liner allows warm air and moisture from inside to escape to keep your hands dry.

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.



Scan the QR-code with your smartphone camera to watch the video

SHOWA

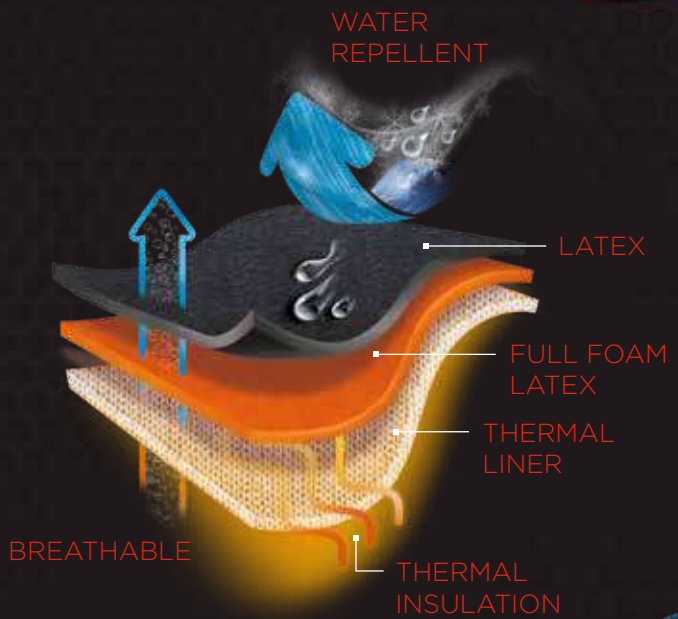
406

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

BENEFITS: Triple protection and comfort improves productivity and reduces cost

- **Designed to protect at temperature down to -30°C, for short or intermittent contact**
- **Water-repellent surface combined with thermal insulating liner keep hands warm and dry enhancing productivity and allowing for longer work periods**
- **Aerated material reduces heat loss via conduction and eliminates convection by trapping warm air inside the glove**
- **Engineered liner and foam latex moisture permeability dissipate sweat and prevent hands getting cold inside the glove**
- **Dual latex coating provides high abrasion resistance and comfort in longer use**
- **Coating technology enhances high level of flexibility and reduces fatigue**
- **SHOWA ergonomic design for premium fit**

APPLICATIONS:
Winter general purpose
Construction
Logistic & warehousing
Assembly
Agriculture
Lawn and garden
DIY
Refrigeration



FEATURES
LINER: Seamless knit nylon/insulated acrylic, nylon
COATING: Latex foam / latex
GRIP: Rough

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

Cat. II | EN 388:2016 2131X | EN 511 010

+ GENERAL PURPOSE VERSION:
SHOWA 306 - p.33
Double latex coating

HEAT PROTECTION

SHOWA

6781R

Full neoprene coating over cotton jersey liner

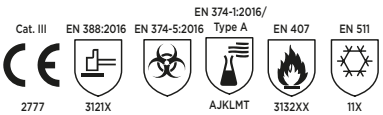
BENEFITS: Chemical and heat resistant

- Neoprene coating provides resistance to abrasion and a wide range of chemicals
- Protects the hand from oils, hydrocarbons and grease penetration
- Provides a high mechanical resistance while insulating against heat and cold
- Insulation against intermittent heat up to 100°C
- Wrist well protected
- Minimal allergy risks

APPLICATIONS:
Chemical
Petrochemical
Automotive
Metallurgy

FEATURES
LINER: Cut and sewn cotton
COATING: Neoprene
GRIP: Rough

REF.	SIZE	LENGTH
6781R	10/L	305mm



SHOWA

8814

Full neoprene spray coating over non-woven liner

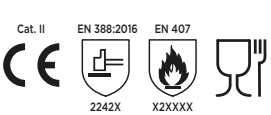
BENEFITS: Food safe approved

- A comfortable, supple glove providing effective protection against abrasion
- High mechanical resistance while insulating against cold and intermittent heat up to 260°C
- Low-soil colour
- Wrist well protected
- Easy to put on and remove
- Suitable for food processing
- No latex allergy risks

APPLICATIONS:
Automotive
Food processing
Hot metal sheets
Castings

FEATURES
LINER: Non-woven cut and sewn
COATING: Neoprene spray
GRIP: Rough

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



DuPont™ Kevlar®

SHOWA

240

Sponge neoprene palm coating over Kevlar®, modacrylic, fibreglass liner

BENEFITS: Combination of Arc flash and cut protection

- Protects against arc flash: Arc flash level 2
- Kevlar® liner increases cut protection: EN 388 level C
- Good resistance against flames and heat
- Provides strong mechanical resistance level
- Flat dipped sponge neoprene coating provides excellent grip while remaining soft and flexible

APPLICATIONS:
Construction
Maritime sector
Metallurgy
Oil & Gas/Offshore

FEATURES
LINER: 13 gauge seamless Kevlar®/ modacrylic/fibreglass knit
COATING: Sponge neoprene
GRIP: Smooth

REF.	SIZE	LENGTH
240	7/S	233mm
240	8/M	260mm
240	9/L	280mm
240	10/XL	285mm
240	11/XXL	290mm

240

Forged with flame and cut-resistant materials, SHOWA 240 is the ultimate armor for arc flash protection in high-risk industries. Featuring a 13-gauge seamless knit liner reinforced with Kevlar® and sponge neoprene palm coating inherently flame-resistant.

1.7s
AFTERFLAME TIME

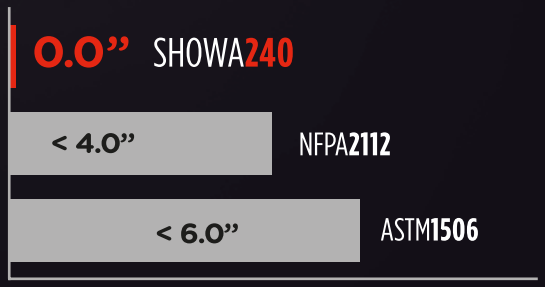
LEVEL C
EN 388

arc thermal protective value
9.2 CAL

0 SECONDS AFTERGLOW TIME

2
ARCS

MELT/DRIP
ZERO
SELF EXTINGUISHES



CHAR LENGTH

ASTM D6413 STANDARD TEST METHOD FOR FLAME RESISTANCE OF TEXTILES (VERTICAL TEST)

- **Afterflame time:** number of seconds during which there is a visible flame remaining on the fabric.
- **Afterglow time:** the number of seconds during which there is a visible glow remaining on the fabric.
- **Char length:** the length in inches of fabric destroyed by the flame. Pass if less than 6 inches.
- **Melt/drip:** recorded occurrence of melting or dripping, if any.

ASTM F2675 TEST METHOD FOR RESISTANCE OF TEXTILES FROM ELECTRIC ARC FLASH

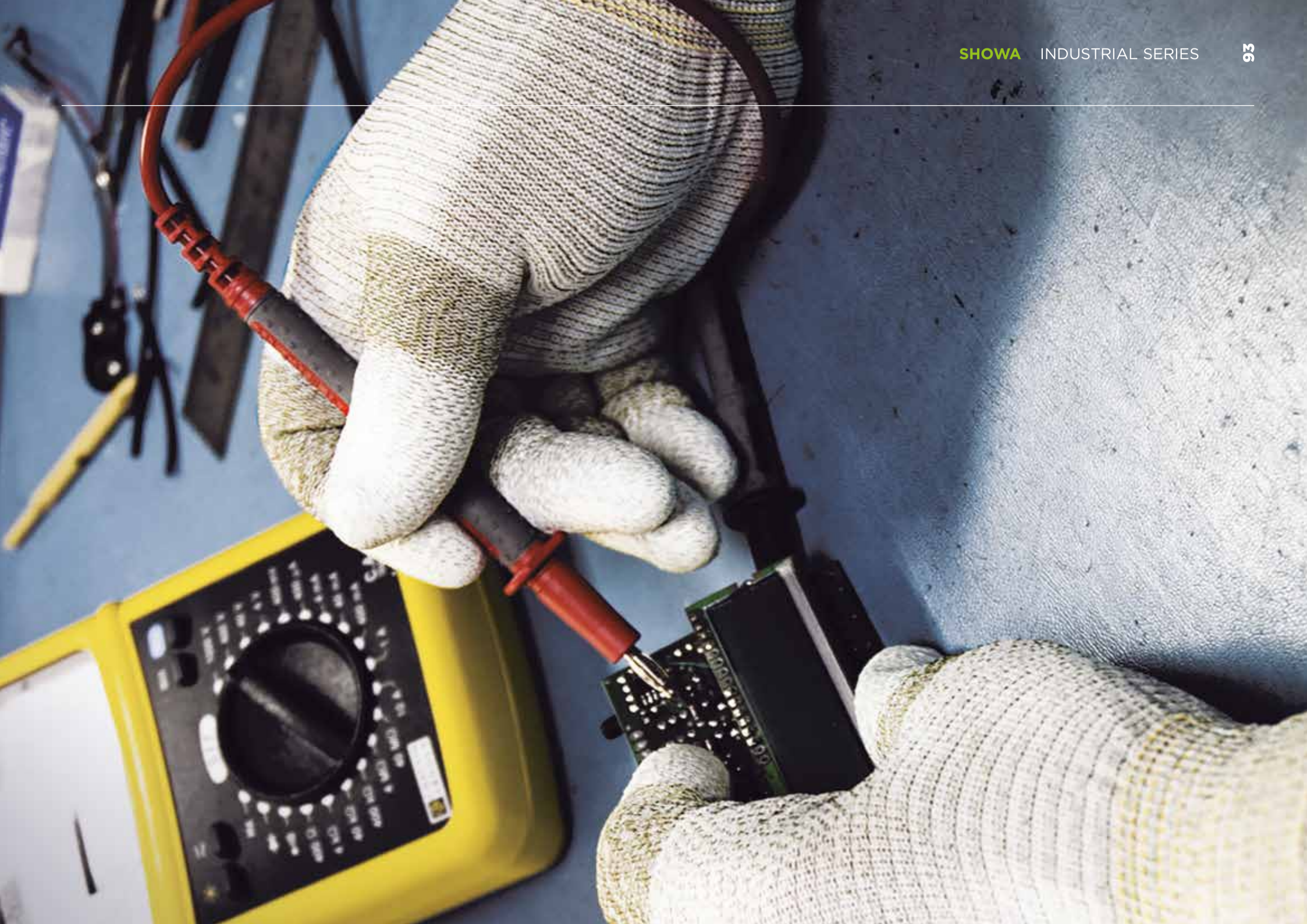
- **Arc thermal protective value (ATPV):** the amount of heat (cal./cm²) that is sufficient to cause second-degree burn injury, based on the Stoll Curve at 50% probability.
- **Arc rating:** Level 1 > 4 cal./cm², level 2 > 8.0 cal./cm², level 3 > 24.9 cal./cm², level 4 > 40 cal./cm²

ANTISTATIC

ANTISTATIC PROTECTION

The human body, including the hand, charges itself with electrical charges. These charges can damage components (like semiconductors or printed circuit boards). That is why SHOWA offers a complete range of gloves to protect these components against static electricity.

Select the right liner and the right quality. The liner prevents electrostatic charges from migrating from the hand to the handled objects by channelling them towards the body to be dispersed in the air and discharged into the ground.



ANTISTATIC

SHOWA

A0170

Polyurethane palm coating over antistatic nylon/acrylic liner

BENEFITS: Antistatic properties

- **Allows precision tasks to be performed and products to be transported with an extremely secure grip**
- **Surface resistivity between 10^5 and 10^7 Ω according to EN 1149-1**
- **A light, elastic low-lint glove with antistatic properties**
- **Protects the hand from oils and abrasion while remaining elastic and breathable**
- **Breathable back of hand to reduce perspiration**
- **Designed for easy movement and extended wear**
- **Seamless knit designed to prevent irritation**
- **No latex allergy risks**

APPLICATIONS:
Automotive
Electronics
Printing

FEATURES
LINER: Seamless nylon/acrylic
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II EN 388:2016 3121X

SHOWA

A0160

Polyurethane fingertips coating over antistatic nylon/acrylic liner

APPLICATIONS:
Automotive
Electronics
Printing

FEATURES
LINER: Seamless nylon/acrylic
COATING: Polyurethane
GRIP: Smooth
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. II EN 388:2016 0130X

SHOWA

A0150

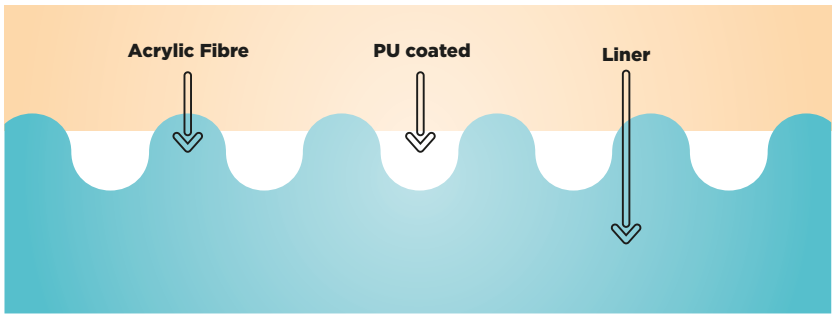
Uncoated antistatic nylon/acrylic liner

APPLICATIONS:
Automotive
Electronics
Printing

FEATURES
LINER: Seamless nylon/acrylic
COATING: Uncoated
+: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
A0150	6/S	170mm
A0150	7/M	180mm
A0150	8/L	190mm
A0150	9/XL	210mm

Cat. II EN 388:2016 0130X



Cross-sectional view

Because polyurethane is not dissipative, the dissipative acrylic fibre is placed at the surface of the knit and protrudes from the coating to give the glove the same surface resistivity in the knitted and coated areas.

SHOWA

660ESD

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

BENEFITS:

- **Protects objects from static electricity to avoid product damage and explosion**
- **PVC seals and protects the hand against chemicals while remaining flexible**
- **Impermeable for working in damp or greasy environments, enabling you to grip objects securely**
- **Vertical resistivity < 10^8 Ω**
- **Wrist well protected**
- **Designed for easy movement and extended wear**
- **A flexible, soft glove that absorbs perspiration for comfort**
- **Seamless knit designed to prevent irritation**

APPLICATIONS:

Petrochemical
Automotive

FEATURES

LINER: Seamless knit cotton
COATING: PVC
GRIP: Rough
+: Ergonomic design hand mould that replicates the natural curves

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

Cat. III | EN 388:2016 | EN 374-5:2016 | EN 374-1:2016/Type C
0120 | 4121X | | AJKLMO

SHOWA

7550

Single use glove, 100% nitrile, antistatic properties, powder free, silicone free, 240mm long by 0.10mm thick

BENEFITS:

- **Antistatic properties: surface resistivity between 10^{11} and 10^{12} Ω**
- **Lightweight glove**

APPLICATIONS:

Intricate parts handling
Police & defense
Aerospace
Printing industry
Painting & spray workshops
Mechanical engoneering
Automotive repairs and maintenance
Petrochemical
Food industry/HoReCa
Electronics
Tattooing
Light chemical handling in agriculture, horticulture

FEATURES

COATING: Nitrile
THICKNESS: 0.10mm
GRIP: Textured

REF.	SIZE	LENGTH
7550	7/S	240mm
7550	8/M	240mm
7550	9/L	240mm
7550	10/XL	240mm

Cat. III | EN 388: 2016 | EN 374-5: 2016 | EN 374-1: 2016/Type C | EN 455 MD CLASS 1
0120 | 1000X | | | |

SHOWA

7565

Single use glove, 100% nitrile, antistatic properties, powder free, silicone free, 300mm long by 0.15mm thick

BENEFITS:

- **Antistatic properties: surface resistivity between 10^{10} and 10^{11} Ω**

APPLICATIONS:

Intricate parts handling
Police & defense
Aerospace
Printing industry
Painting & spray workshops
Mechanical engoneering
Automotive repairs and maintenance
Petrochemical
Food industry/HoReCa
Electronics
Tattooing
Light chemical handling in agriculture, horticulture

FEATURES

COATING: Nitrile
THICKNESS: 0.15mm
GRIP: Textured

REF.	SIZE	LENGTH
7565	7/S	300mm
7565	8/M	300mm
7565	9/L	300mm
7565	10/XL	300mm

Cat. III | EN 388: 2016 | EN 374-5: 2016 | EN 374-1: 2016/Type C | EN 455 MD CLASS 1
0120 | 2000X | | | |

SINGLE USE

DISPOSABLE GLOVES

SHOWA is one of the most accomplished innovators and manufacturers of single use hand protection ever. The first to create single use nitrile, biodegradable nitrile and accelerator-free nitrile hand protection – we offer the broadest line of single use choices available within the industry.

We offer 11 different styles with 4 thicknesses and 2 lengths, suitable for environments such as medical, industrial and cleanroom, as well as the option of silicone- and accelerator-free.

All our single use gloves are 100% nitrile and designed to provide users with a latex allergy-free risk protection whatever task is at hand.

SHOWA SINGLE USE NITRILE RANGE

Combining years of expertise and market insight, SHOWA introduces the most comprehensive single use nitrile solution. The range offers a broad choice of single use gloves, composed of 11 different styles with 4 thicknesses, 2 lengths, from XS to XXL sizes, suitable for laboratory, pharmaceutical, cleanroom, food industry, automotive and harmful chemical usage and in compliance with all CE standards.

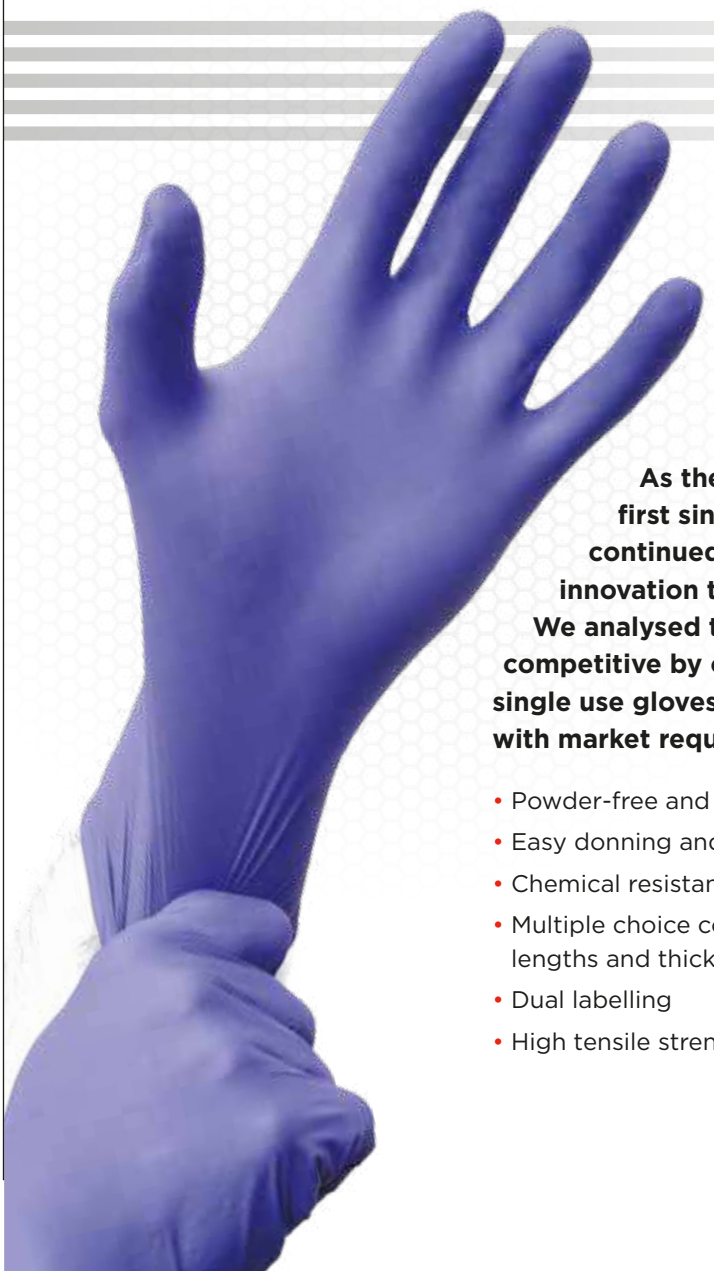
The single use range is designed to feature all the following physical properties and benefits:

KEY FEATURES & PHYSICAL PROPERTIES

- 100% nitrile without plasticizers, powder-free and silicone-free
- Avoids latex allergies risks type I
- SHOWA quality AQL 0.65 to 1.5
- Force at break > 10N
- Elongation > 500%
- Dual labelling for expanded specific functions

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



As the original inventor of N-DEX®, the world's first single use nitrile glove in 1991, SHOWA has continued over the last two decades to bring further innovation to single use nitrile.

We analysed trends and growth drivers to become more competitive by offering the broadest lines of superior quality single use gloves and comprehensive solutions, complying with market requirements:

- Powder-free and latex-free
- Easy donning and doffing
- Chemical resistant
- Multiple choice colours, lengths and thicknesses
- Dual labelling
- High tensile strength
- Safe for workers' skin
- Comfort in use and high sensitivity
- Ergonomic fit
- Durable and cost-effective glove
- Accelerator-free
- Antistatic

SINGLE USE NITRILE SERIES
RANGE SUMMARY

	7540	7545	7555	7580	7585	7505PF	7570	6110PF	C9905	7530	7535
THICKNESS (mm)	0.10	0.10	0.12	0.20	0.20	0.10	0.10	0.10	0.12	0.10	0.15
LENGTH (mm)	240	300	300	240	300	240	240	240	300	240	300
SIZES	XS-XXL	S-XXL	XS-XL	S-XXL	S-XXL	XS-XXL	XS-XL	XS-XXL	XS-XL	S-XL	S-XL
CE CATEGORY	III	III	III	III	III	III	III	III	III	III	III
EN 388	1000X	1000X		2001X	2001X					1000X	2000X
EN 374-5	●	●	●	●	●	●	●	●	●	●	●
EN 374-1	●	●	●	JKL	JKL	JKPT		KPT	●	●	●
EN 455	●	●	●	●	●		●			●	●
FOOD APPROVED (EC No. 1935/2004)	●	●	●	●	●	●	●	●		●	●
EN 1149										●	●
SILICONE FREE	●	●	●	●	●	●	●		●	●	●
ACCELERATOR FREE							●				
ULTIMATE TENSILE STRENGTH (MPa)	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 14	≥ 20	≥ 14	≥ 14	≥ 14
ELONGATION AT BREAK (%) **MIN.**	500	500	500	500	500	500	500	550	500	500	500
FORCE AT BREAK (N)	10	10	16	20	20	6	11	6	16	10	16
GLOVES PER DISPENSER	100	100	50	50	50	100	100	100	100	100	50
DISPENSERS PER CARTON	20	20	20	20	20	10	20	10	10	20	20

COBALT BLUE SERIES

SHOWA

7540

Single use glove,
100% nitrile, powder-free,
silicone-free, 240mm long
by 0.10mm thick

BENEFITS:

- **Dual labelling: PPE and medical device**
- **Ideal for chemical splash protection**
- **Laboratory, food industry, pharmaceutical, medical, electronic**

APPLICATIONS:

Laboratory & analysis
Pharmaceuticals & API
Emergency services
Medical
Chemical industry
Printing industry
Painting and spray workshops
Electronics
Intricate parts handling
Light assembly of oil-coated pieces
Glass manufacturing
Food industry/HoReCa
Aerospace
Cytostatics

FEATURES

COATING: Nitrile
THICKNESS: 0.10mm
GRIP: Textured

REF.	SIZE	LENGTH
7540	6/XS	240mm
7540	7/S	240mm
7540	8/M	240mm
7540	9/L	240mm
7540	10/XL	240mm
7540	11/XXL	240mm

Cat. III · EN 388: 2016 · EN 374-5: 2016 · EN 374-1: 2016/Type C · 0493 · 1000X · EN 455 MD CLASS 1

SHOWA

7545

Single use glove,
100% nitrile, powder-free,
silicone-free, 300mm long
by 0.10mm thick

BENEFITS:

- **Dual labelling: PPE and medical device**
- **Ideal for chemical splash protection**
- **Laboratory, food industry, pharmaceutical, medical, electronic**

APPLICATIONS:

Laboratory & analysis
Pharmaceuticals & API
Emergency services
Medical
Chemical industry
Printing industry
Painting and spray workshops
Electronics
Intricate parts handling
Light assembly of oil-coated pieces
Glass manufacturing
Food industry/HoReCa
Aerospace
Cytostatics

FEATURES

COATING: Nitrile
THICKNESS: 0.10mm
GRIP: Textured

REF.	SIZE	LENGTH
7545	7/S	300mm
7545	8/M	300mm
7545	9/L	300mm
7545	10/XL	300mm
7545	11/XXL	300mm

Cat. III · EN 388: 2016 · EN 374-5: 2016 · EN 374-1: 2016/Type C · 0493 · 1000X · EN 455 MD CLASS 1

SHOWA

7555

Single use glove,
100% nitrile, powder-free,
silicone-free, 300mm long
by 0.12mm thick

BENEFITS:

- **Dual labelling: PPE and medical device**
- **Ideal for chemical splash protection**
- **Laboratory, food industry, pharmaceutical, medical, electronic**

APPLICATIONS:

Laboratory & analysis
Pharmaceuticals & API
Emergency services
Medical
Chemical industry
Printing industry
Painting and spray workshops
Electronics
Intricate parts handling
Light assembly of oil-coated pieces
Glass manufacturing
Food industry/HoReCa
Aerospace
Cytostatics

FEATURES

COATING: Nitrile
THICKNESS: 0.12mm
GRIP: Textured

REF.	SIZE	LENGTH
7555	6/XS	300mm
7555	7/S	300mm
7555	8/M	300mm
7555	9/L	300mm
7555	10/XL	300mm

Cat. III · EN 374-5: 2016 · EN 374-1: 2016/Type C · 0493 · EN 455 MD CLASS 1

SHOWA

7580

Single use glove,
100% nitrile, powder-free,
silicone-free, 240mm long
by 0.20mm thick

BENEFITS:

- **Thicker glove provide more resistance to chemicals**
- **Chemical industry, printing, aerospace, heavy chemical handling**
- **Dual labelling: PPE and medical device**

APPLICATIONS:

Laboratory & analysis
Pharmaceuticals & API
Emergency services
Medical
Chemical industry
Printing industry
Painting and spray workshops
Electronics
Intricate parts handling
Light assembly of oil-coated pieces
Glass manufacturing
Food industry/HoReCa
Aerospace
Cytostatics

FEATURES

COATING: Nitrile
THICKNESS: 0.20mm
GRIP: Textured

REF.	SIZE	LENGTH
7580	7/S	240mm
7580	8/M	240mm
7580	9/L	240mm
7580	10/XL	240mm
7580	11/XXL	240mm

Cat. III | EN 388: 2016 | EN 374-5: 2016 | EN 374-1: 2016/Type B | EN 455 MD CLASS 1
0493 | 2001X | JKL

SHOWA

7585

Single use glove,
100% nitrile, powder-free,
silicone-free, 300mm long
by 0.20mm thick

BENEFITS:

- **Thicker glove provide more resistance to chemicals**
- **Chemical industry, printing, aerospace, heavy chemical handling**
- **Dual labelling: PPE and medical device**

APPLICATIONS:

Laboratory & analysis
Pharmaceuticals & API
Emergency services
Medical
Chemical industry
Printing industry
Painting and spray workshops
Electronics
Intricate parts handling
Light assembly of oil-coated pieces
Glass manufacturing
Food industry/HoReCa
Aerospace
Cytostatics

FEATURES

COATING: Nitrile
THICKNESS: 0.20mm
GRIP: Textured

REF.	SIZE	LENGTH
7585	7/S	300mm
7585	8/M	300mm
7585	9/L	300mm
7585	10/XL	300mm
7585	11/XXL	300mm

Cat. III | EN 388: 2016 | EN 374-5: 2016 | EN 374-1: 2016/Type B | EN 455 MD CLASS 1
0493 | 2001X | JKL

SHOWA

7505PF

Single use glove, 100% nitrile, powder-free, silicone-free, 240mm long by 0.10mm thick

BENEFITS: Chemical protection

- **0.10mm thickness protects from a wide array of chemical hazards while avoiding latex allergies**
- **Patented low-modulus formulation to improve fit and reduce fatigue**
- **Easy to put on and remove**
- **Ambidextrous; can be worn on either hand**

APPLICATIONS:

Electronic components
Integrated circuits
Chemical industry
Laboratory & pharma
Quality control
Automotive

FEATURES

COATING: Nitrile
THICKNESS: 0.10mm
GRIP: Textured

REF.	SIZE	LENGTH
7505PF	5-6/XS	240mm
7505PF	6-7/S	240mm
7505PF	7-8/M	240mm
7505PF	8-9/L	240mm
7505PF	9-10/XL	240mm
7505PF	10-11/XXL	240mm

Cat. III · 2227 | EN 374-5:2016 · VIRUS | EN 374-1: 2016/Type B · JKPT

SHOWA

7570

Accelerator free single use glove, 100% nitrile, powder-free, silicone-free, 240mm long by 0.10mm thick

BENEFITS:

- **Fluorescent High Visibility: Increased safety in poor lighting conditions**
- **Lightweight glove**
- **Accelerator-free formulation: protect very sensitive skins**

APPLICATIONS:

Pharmaceutical
Laboratories
Hospital & medical care
Pharmaceuticals & API
Emergency services
Agriculture, Horticulture
Light assembly
Chemical industry
Petrochemical
Automotive repairs and maintenance

FEATURES

COATING: Nitrile
THICKNESS: 0.10mm
GRIP: Textured

REF.	SIZE	LENGTH
7570	6/XS	240mm
7570	7/S	240mm
7570	8/M	240mm
7570	9/L	240mm
7570	10/XL	240mm

Cat. III · 0493 | EN 374-5:2016 | EN 374-1: 2016/Type B | EN 455 MD CLASS 1

SHOWA

6110PF

Biodegradable single use glove, 100% nitrile with EBT® technology, powder-free, 240mm long by 0.10mm thick

BENEFITS: The world's first biodegradable single use nitrile glove

- **EBT® maintain the same properties as regular nitrile**
- **EBT® technology: accelerates the biodegradation of nitrile in biologically active landfills**
- **EBT® is composed of organic materials designed to make 6110PF attractive to microbial activity**
- **The microorganisms upon consuming the EBT® material excrete enzymes that depolymerize the nitrile in 1-5 years**
- **Second skin feel**
- **Ambidextrous; can be worn on either hand**
- **EU Food safe approved**

APPLICATIONS:

Janitorial/Sanitation
Intricate Parts Handling
Technical Maintenance
Laboratory Analysis
Automotive
Food Processing

FEATURES

COATING: Biodegradable nitrile
THICKNESS: 0.10mm
GRIP: Smooth

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

Cat. III · 2227 | EN 374-5:2016 · VIRUS | EN 374-1: 2016/Type B · KPT

CLEANROOM

SHOWA

C9905PF

Single use glove, 100% nitrile, powder-free, silicone-free, 300mm long by 0.12mm thick

BENEFITS:

- **Certified and suitable for use in Class 100 cleanroom environment.**
- **Process : Laundered with 0.2 micron filtered high resistivity D.I. water and packed in certified cleanroom environment**
- **White colour for cleanroom where high standards of industrial hygiene are required**

APPLICATIONS:

Pharmaceuticals & API
Biotechnology
Optics
Microelectronic
Semiconductors
Quality control
Integrated circuits
Laboratory & pharma
Life sciences

FEATURES

COATING: Nitrile
THICKNESS: 0.12mm
GRIP: Textured

REF.	SIZE	LENGTH
C9905PF	6/XS	300mm
C9905PF	7/S	300mm
C9905PF	8/M	300mm
C9905PF	9/L	300mm
C9905PF	10/XL	300mm

Cat. III | EN 374-5:2016 | EN 374-1: 2016/Type C
2777 | VIRUS

ANTISTATIC

SHOWA

7550

Single use glove, 100% nitrile, antistatic properties, powder-free, silicone-free, 240mm long by 0.10mm thick

BENEFITS:

- **Antistatic properties: surface resistivity between 10^{11} and 10^{12} Ω**
- **Lightweight glove**

APPLICATIONS:

Intricate parts handling
Police & defense
Aerospace
Printing industry
Painting & spray workshops
Mechanical engoneering
Automotive repairs and maintenance
Petrochemical
Food industry/HoReCa
Electronics
Tattooing
Light chemical handling in agriculture, horticulture

FEATURES

COATING: Nitrile
THICKNESS: 0.10mm
GRIP: Textured

REF.	SIZE	LENGTH
7550	7/S	240mm
7550	8/M	240mm
7550	9/L	240mm
7550	10/XL	240mm

Cat. III | EN 388: 2016 | EN 374-5: 2016 | EN 374-1: 2016/Type C | EN 455 MD CLASS 1
0493 | 1000X

SHOWA

7565

Single use glove, 100% nitrile, antistatic properties, powder-free, silicone-free, 300mm long by 0.15mm thick

BENEFITS:

- **Antistatic properties: surface resistivity between 10^{10} and 10^{11} Ω**

APPLICATIONS:

Intricate parts handling
Police & defense
Aerospace
Printing industry
Painting & spray workshops
Mechanical engoneering
Automotive repairs and maintenance
Petrochemical
Food industry/HoReCa
Electronics
Tattooing
Light chemical handling in agriculture, horticulture

FEATURES

COATING: Nitrile
THICKNESS: 0.15mm
GRIP: Textured

REF.	SIZE	LENGTH
7565	7/S	300mm
7565	8/M	300mm
7565	9/L	300mm
7565	10/XL	300mm

Cat. III | EN 388: 2016 | EN 374-5: 2016 | EN 374-1: 2016/Type C | EN 455 MD CLASS 1
0493 | 2000X

CHEMICAL RESISTANCE GUIDE
SINGLE USE NITRILE SERIES

The level (0 to 6) indicates the time required for different chemicals to permeate through the glove.

BREAKTHROUGH TIME	PERFORMANCE LEVEL	
≤ 1 minute	Level 0	Not recommended
1 to 5 minutes	Level 0+	Splash protection only; change the glove immediately after contact!
6 to 10 minutes	Level 0++	Splash protection only; change the glove immediately after contact!
> 10 minutes	Level 1	Short contact only; change the glove after 10 minutes max!
> 30 minutes	Level 2	Medium protection, 30 minutes contact.
> 60 minutes	Level 3	Medium protection, 60 minutes contact.
> 120 minutes	Level 4	Good protection level.
> 240 minutes	Level 5	Very good protection level.
> 480 minutes	Level 6	Excellent protection level.

TTL : total immersion chemical permeation breakthrough time.
INT : intermittent contact chemical permeation breakthrough time, one minute immersion out of every ten, repeatedly.

CHEMICAL AGENT	CAS Number	TTL	INT	TTL	INT	TTL	INT
ACETALDEHYDE	75-07-0	<1	1	1	2	1	6
ACETIC ACID (84%)	64-19-7	11	37	22	73	29	98
ACETONE	67-64-1	<1	2	1	4	2	6
ACETONITRILE	75-05-8	4	13	5	14	7	15
ACETOXYACETYL CHLORIDE	13831-31-7	4	8	8	25	15	30
ACRYLAMIDE	79-06-1	>120	>240	>240	>240	>480	>240
ACRYLONITRILE	107-13-1	<1	<1	<1	1	<1	3
ALKASOL 27	90111-76-3	>120	>240	>240	>240	>480	>240
ALLYL ALCOHOL	107-18-6	<1	4	1	6	4	16
ALODINE 1000 SOLUTION	97631-99-6	>120	>240	>240	>240	>480	>240
ALODINE 1200S SOLUTION	93755-29-8	>120	>240	>240	>240	>480	>240
AMMONIUM HYDROXIDE (29%)	1336-21-6	9	30	18	60	54	164
AMYL ACETATE	628-63-7	<1	1	1	4	3	11
AMYL ALCOHOL	71-41-0	24	37	48	93	72	149
ANILINE	62-53-3	<1	<1	<1	<1	<1	3
ANTIMONY TRIBUTYRATE (95%)	53856-17-0	>120	>240	>240	>240	>480	>240
BATTERY ACID (47%)	7664-93-9	>480	>240	>480	>240	>480	>240
BENZALDEHYDE	100-52-7	2	8	5	16	9	31
BENZENAMINE	62-53-3	<1	<1	<1	<1	<1	3
BENZENE	71-43-2	<1	<1	1	2	2	3

CHEMICAL AGENT	CAS Number	SHOWA 7505 SHOWA 7540 SHOWA 7545 SHOWA 7550 SHOWA 7555 SHOWA 6110 SHOWA 7570 SHOWA C9905 TTL	INT	SHOWA 7565 TTL	INT	SHOWA 7580 SHOWA 7585 TTL	INT
BENZYL ALCOHOL	100-51-6	<1	<1	1	2	6	20
BLASOCUT 2000 UNIVERSAL (70%)	98608-26-6	>120	>240	>240	>240	>480	>240
BLASOCUT 4000	94742-52-7	>120	>240	>240	>240	>480	>240
BLEACH: SODIUM HYPOCHLORITE (4-6%) (6%)	7681-52-9	>480	>240	>480	>240	>480	>240
BOEING ALKASOL 27 (10%)	90111-76-3	>120	>240	>240	>240	>480	>240
BOEING ALODINE 1000 SOLUTION (1%)	97631-99-6	>120	>240	>240	>240	>480	>240
BOEING ALODINE 1200S SOLUTION (2%)	93755-29-8	>120	>240	>240	>240	>480	>240
BOEING BLASOCUT 4000	94742-52-7	>120	>240	>240	>240	>480	>240
BORIC ACID-SULFURIC ACID (6%)	90043-35-4	>120	>240	>240	>240	>480	>240
BROMOETHYL ACETATE, 2-	927-68-4	2	7	4	12	7	35
BROMOFORM	75-25-2	<1	<1	1	2	3	11
BUTANOL	71-36-3	13	43	17	57	24	80
BUTOXYPROPANOL	5131-66-8	6	20	8	27	11	36
BUTOXYTRIGLYCOL	143-22-6	6	20	8	27	11	36
BUTYL ACETATE	123-86-4	<1	<1	<1	<1	<1	<1
BUTYL ACRYLATE	141-32-2	1	3	2	4	4	6
BUTYL ALCOHOL	71-36-3	13	43	17	57	24	80
BUTYL ETHANOATE	123-86-4	<1	<1	<1	<1	<1	<1
BUTYL TOLUENE P-TERT-	98-51-1	11	37	14	47	20	67
BUTYLAMINE	109-73-9	<1	<1	<1	<1	<1	<1
CAPRINUS U MULTIGRADE RAILROAD OIL	66532-00-0	>480	>240	>480	>240	>480	>240
CARBON TETRACHLORIDE	56-23-5	1	2	2	6	7	24
CASCADE COLUMBIA 3 PART A	90112-34-7	35	115	69	230	138	>240
CELLOSOLVE ACETATE	111-15-9	<1	2	1	4	3	9
CHEVRON JET FUEL A	94742-80-1	>120	>240	>240	>240	>480	>240
CHLOROBENZENE	108-90-7	<1	2	1	4	2	6
CHLOROFORM	67-66-3	<1	<1	<1	<1	<1	<1
CHROMIC ACID	1333-82-0	<1	<1	<1	<1	<1	<1
CHROMIUM TRIOXIDE (50%)	1333-82-0	<1	<1	<1	<1	<1	<1
CITRA-SAFE DEODORIZER	95989-27-5	6	21	13	42	25	83
CITRIC ACID (30%)	77-92-9	>480	>240	>480	>240	>480	>240
CITRUS TERPENES MIXTURE	68956-56-9	65	216	130	>240	259	>240
CRESOLS	1319-77-3	<1	<1	<1	<1	<1	<1
CRESYLIC ACID	79-10-7	<1	<1	<1	<1	<1	<1
CUMENE	98-82-8	2	4	5	7	9	14
CYCLOHEXANE	110-82-7	10	33	20	67	38	>240
CYCLOHEXANOL	108-93-0	80	>240	160	>240	275	>240
CYCLOHEXANONE	108-94-1	1	3	2	4	2	6
CYCLOHEXYL KETONE	108-94-1	1	3	2	4	2	6
DARACLEAN 282	90112-34-9	>120	>240	>240	>240	>480	>240
DESOCLEAN 45 MIXTURE (50%)	90067-63-1	<1	2	1	3	3	10
DIACETONE ALCOHOL	123-42-4	<1	<1	<1	<1	<1	<1
DIBUTYL PHTHALATE N-	84-74-2	60	200	85	>240	120	>240
DICHLOROBENZENE O-	95-50-1	<1	<1	<1	<1	<1	<1
DICHLOROETHANE 1,2-	107-06-2	<1	2	1	3	4	15
DIESEL FUEL	77650-28-3	>480	>240	>480	>240	>480	>240
DIETHANOLAMINE	111-42-2	24	80	48	160	128	>240
DIETHYL ETHER	60-29-7	<1	1	1	2	2	3
DIETHYLAMINE	109-89-7	<1	2	1	4	4	10
DIETHYLENE GLYCOL	111-46-6	>120	>240	>240	>240	>480	>240

SHOWA 7505 | SHOWA 7540 | SHOWA 7545 | SHOWA 7550 | SHOWA 7555 | SHOWA 6110 | SHOWA 7570 | SHOWA C9905 | SHOWA 7565 | SHOWA 7580 | SHOWA 7585

CHEMICAL AGENT	CAS Number	TTL	INT	TTL	INT	TTL	INT
DI-ISOBUTYL KETONE	108-83-8	19	62	37	123	74	>240
DIMETHYL FORMAMIDE	68-12-2	<1	2	1	4	3	9
DIMETHYL SULFATE	77-78-1	8	25	15	32	30	40
DIMETHYL-4-HEPTANONE, 2,6-	108-83-8	19	62	37	123	74	>240
DIMETHYLACETAMIDE N,N-	127-19-5	2	8	5	15	9	30
DIMETHYLSULFOXIDE	67-68-5	23	77	46	153	61	204
DINITROL AV30 SPRAY	94894-36-1	>120	>240	>240	>240	>480	>240
DINITROL AV8 MOD	94742-48-1	>120	>240	>240	>240	>480	>240
DINITROTOLUENE (40% IN ROH) (40%)	121-14-2	1	3	2	7	6	21
DIOXANE 1,4-	123-91-1	2	6	4	12	7	14
DIVINYL BENZENE	1321-74-0	5	17	10	33	20	66
DMAC	127-19-5	2	8	5	15	9	30
DMF	68-12-2	<1	2	1	4	3	9
DMSO	67-68-5	23	77	46	153	61	204
DONAX TG TRANSMISSION FLUID	60486-00-0	>480	>240	>480	>240	>480	>240
DOWTHERM, BIPHENYL (27%)	92-52-4	<1	<1	<1	<1	<1	<1
DUBL-CHEK PENETRANT MIXTURE	68131-40-8	>120	>240	>240	>240	>480	>240
ETHANOL	64-17-5	7	23	14	47	24	80
ETHANOLAMINE	141-43-5	6	20	12	40	24	80
ETHIDIUM BROMIDE (5%)	1239-45-8	>480	>240	>480	>240	>480	>240
ETHYL ACETATE	141-78-6	<1	4	2	7	4	14
ETHYL ALCOHOL	64-17-5	7	23	14	47	24	80
ETHYL ALDEHYDE	75-07-0	<1	1	1	2	1	6
ETHYL BENZENE	100-41-4	<1	<1	1	2	2	4
ETHYL BUTANOL	97-95-0	<1	3	1	6	3	11
ETHYL ETHER	60-29-7	<1	1	1	2	2	3
ETHYLAMINE	75-04-7	<1	<1	<1	<1	<1	<1
ETHYLENE DICHLORIDE	107-06-2	<1	2	1	3	4	15
ETHYLENE GLYCOL	107-21-1	>480	>240	>480	>240	>480	>240
ETHYLENEDIAMINE (99%)	107-15-3	<1	2	1	5	4	13
FCC-55	90108-10-2	2	5	3	10	6	20
FLUOBORIC ACID (49%)	16872-11-0	10	30	20	67	30	100
FORMALDEHYDE (37%)	50-00-0	>480	>240	>480	>240	>480	>240
FORMIC ACID	64-18-6	<1	2	1	4	9	30
FREON 113	76-13-1	3	10	6	20	12	40
FURFURAL	98-01-1	<1	2	1	3	2	9
FURFURALDEHYDE	98-01-1	<1	2	1	3	2	9
GASOLINE (PREMIUM UNLEADED)	8032-32-4	9	30	18	60	39	130
GASOLINE (UNLEADED)	8006-61-9	1	2	2	7	6	20
GLACIAL ACETIC ACID (84%)	64-19-7	11	37	22	73	29	98
GLUTARALDEHYDE	111-30-8	30	100	60	200	120	>240
HEPTANE	142-82-5	31	103	62	207	100	>240
HEXALIN	108-93-0	80	>240	160	>240	275	>240
HEXANE	110-54-3	11	30	15	50	20	85
HEXENE	592-41-6	<1	<1	<1	<1	<1	<1
HEXYL CELLOSOLVE	112-25-4	21	66	41	137	82	>240

CHEMICAL AGENT	CAS Number	SHOWA 7505 TTL	SHOWA 7505 INT	SHOWA 7540 TTL	SHOWA 7540 INT	SHOWA 7545 TTL	SHOWA 7545 INT	SHOWA 7550 TTL	SHOWA 7550 INT	SHOWA 7555 TTL	SHOWA 7555 INT	SHOWA 6110 TTL	SHOWA 6110 INT	SHOWA 7570 TTL	SHOWA 7570 INT	SHOWA C9905 TTL	SHOWA C9905 INT	SHOWA 7565 TTL	SHOWA 7565 INT	SHOWA 7580 TTL	SHOWA 7580 INT	SHOWA 7585 TTL	SHOWA 7585 INT
HUNTSMAN DIMETHYLCYCLOHEXYL AMINE	98-94-2	4	13	8	25	15	50																
HUNTSMAN DIMETHYLPIPERAZINE	106-58-1	8	25	15	50	30	100																
HUNTSMAN JEFFCAT DMDEE	6425-39-4	4	13	8	25	15	50																
HUNTSMAN METHYLMORPHOLINE	7529-22-8	113	>240	227	>240	453	>240																
HYDRAZINE HYDRATE (85%)	302-01-2	>120	>240	>240	>240	>480	>240																
HYDROCHLORIC ACID (37%)	7647-01-0	>480	>240	>480	>240	>480	>240																
HYDROFLUORIC ACID (48%)	7664-39-3	7	23	14	47	19	50																
HYDROGEN PEROXIDE (30%)	7722-84-1	>480	>240	>480	>240	>480	>240																
ISO AMYL ACETATE	123-92-2	<1	2	1	3	3	7																
ISO AMYL ALCOHOL	123-51-3	1	2	2	4	5	6																
ISO-BUTANOL	78-83-1	40	133	80	>240	88	>240																
ISO-OCTANE	540-84-1	120	>240	240	>240	389	>240																
ISOPENTANOL	123-51-3	1	2	2	4	5	6																
ISOPENTYL ACETATE	123-92-2	<1	2	1	3	3	7																
ISOPROPYL ACETATE	108-21-4	1	3	3	8	5	10																
ISOPROPYL ALCOHOL	67-63-0	28	93	43	143	60	200																
ISOPROPYLBENZENE	98-82-8	2	4	5	7	9	14																
JET FUEL A	94742-80-1	>120	>240	>240	>240	>480	>240																
JET FUEL JP-4	94742-47-9	8	28	17	55	33	110																
JET FUEL JP-8	98008-20-6	>120	>240	>240	>240	>480	>240																
KEROSENE	8008-20-6	8	25	15	50	30	100																
LACTIC ACID (85%)	50-21-5	>480	>240	>480	>240	>480	>240																
LIMONENE D-	5989-27-5	8	26	16	52	31	>240																
MADRELLA P 150 OIL	56930-00-0	>480	>240	>480	>240	>480	>240																
MEK	78-93-3	<1	1	1	3	2	5																
MEK/SBA	90078-92-3	2	6	4	12	7	23																
METHANOIC ACID (90%)	64-18-6	<1	2	1	4	9	30																
METHANOL	67-56-1	1	2	2	5	7	13																
METHYL ACETATE	79-20-9	<1	2	1	2	3	3																
METHYL ALCOHOL	67-56-1	1	2	2	5	7	13																
METHYL CYANIDE	75-05-8	4	13	5	14	7	15																
METHYL ETHYL KETONE	78-93-3	<1	1	1	3	2	5																
METHYL ETHYL KETOXIME	96-29-7	19	53	38	127	76	>240																
METHYL IODIDE	74-88-4	<1	<1	<1	<1	<1	2																
METHYL ISOBUTYL KETONE	108-10-1	1	4	2	7	5	15																
METHYL ISOBUTYL KETOXIME	105-44-2	>480	>240	>480	>240	>480	>240																
METHYL METHACRYLATE	80-62-6	<1	2	1	3	3	9																
METHYL PROPASOL SOLVENT	107-98-2	6	20	8	27	10	33																
METHYL PROPYL KETONE	107-87-9	<1	1	1	2	3	10																
METHYL PYRROLIDONE N-	872-50-4	2	6	4	12	7	24																
METHYLENE CHLORIDE	75-09-2	<1	1	1	2	1	4																
METHYLENE OXIDE (37%)	50-00-0	>480	>240	>480	>240	>480	>240																
METHYLENEDIANILINE 4,4- (190 C)	101-77-9	5	15	9	30	18	60																
METHYLMORPHOLINE (65%)	7529-22-8	113	>240	227	>240	453	>240																
METHYL-TERT-BUTYL ETHER	1634-04-4	<1	<1	<1	<1	<1	<1																
METRICIDE (50%)	111-30-8	30	100	60	200	120	>240																
MIBK	108-10-1	1	4	2	7	5	15																
MICROCUT 26	98330-12-9	>120	>240	>240	>240	>480	>240																
MINERAL SPIRITS	64475-85-0	>480	>240	>480	>240	>480	>240																
MONOBUTYLAMINE	109-73-9	<1	<1	<1	<1	<1	<1																

CHEMICAL AGENT	CAS Number	SHOWA 7505 TTL	SHOWA 7505 INT	SHOWA 7540 TTL	SHOWA 7540 INT	SHOWA 7545 TTL	SHOWA 7545 INT	SHOWA 7550 TTL	SHOWA 7550 INT	SHOWA 7555 TTL	SHOWA 7555 INT	SHOWA 6110 TTL	SHOWA 6110 INT	SHOWA 7570 TTL	SHOWA 7570 INT	SHOWA C9905 TTL	SHOWA C9905 INT	SHOWA 7565 TTL	SHOWA 7565 INT	SHOWA 7580 TTL	SHOWA 7580 INT	SHOWA 7585 TTL	SHOWA 7585 INT
MONOCHLOROBENZENE	108-90-7	<1	2	<1	2	<1	2	<1	2	<1	2	<1	2	<1	2	<1	2	1	4	2	6	2	6
MONOETHANOLAMINE	141-43-5	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	12	40	24	80	24	80
MORPHOLINE	110-91-8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MPK	107-87-9	<1	1	<1	1	<1	1	<1	1	<1	1	<1	1	<1	1	<1	1	1	2	3	10	3	10
MTBE	1634-04-4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MURIATIC ACID (10% HCL) (10%)	7647-01-0	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240
NAPHTHA	8032-32-4	9	30	9	30	9	30	9	30	9	30	9	30	9	30	9	30	18	60	39	130	39	130
NINHYDRIN	485-47-2	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240
NITRIC ACID (23%)	7697-37-2	>120	>240	>120	>240	>120	>240	>120	>240	>120	>240	>120	>240	>120	>240	>120	>240	>240	>240	>480	>240	>480	>240
NITRIC ACID (70%)	7697-37-2	2	7	2	7	2	7	2	7	2	7	2	7	2	7	2	7	4	13	5	18	5	18
NITRIC/HYDROFLUORIC PICKLING SOLUTION (50%)	97697-37-4	>120	>240	>120	>240	>120	>240	>120	>240	>120	>240	>120	>240	>120	>240	>120	>240	>240	>240	>480	>240	>480	>240
NITROBENZENE	98-95-3	<1	2	<1	2	<1	2	<1	2	<1	2	<1	2	<1	2	<1	2	1	3	2	9	2	9
NITROMETHANE	75-52-5	<1	1	<1	1	<1	1	<1	1	<1	1	<1	1	<1	1	<1	1	1	3	3	5	3	5
NITROPROPANE	79-46-9	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NMP	872-50-4	2	6	2	6	2	6	2	6	2	6	2	6	2	6	2	6	4	12	7	24	7	24
NYCOTE 7-11 MIXTURE	90064-17-7	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3	2	7	5	17	5	17
OCTANOL N-	111-87-5	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240
OLEIC ACID (98%)	112-80-1	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240
ORTHO DICHLOROBENZENE	95-50-1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
OXALIC ACID (s)	144-62-7	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240
OXYBISBENZENE, 1,1- (DOWTHERM) (73%)	101-84-8	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PENTANE	109-66-0	4	13	4	13	4	13	4	13	4	13	4	13	4	13	4	13	8	27	21	59	21	59
PENTANONE, 2-	107-87-9	<1	1	<1	1	<1	1	<1	1	<1	1	<1	1	<1	1	<1	1	1	2	3	10	3	10
PENTYL ACETATE	628-63-7	<1	1	<1	1	<1	1	<1	1	<1	1	<1	1	<1	1	<1	1	1	4	3	11	3	11
PENTYL ALCOHOL	71-41-0	24	37	24	37	24	37	24	37	24	37	24	37	24	37	24	37	48	75	72	149	72	149
PERACETIC ACID (39%)	79-21-0	2	7	2	7	2	7	2	7	2	7	2	7	2	7	2	7	5	17	13	44	13	44
PERCHLOROETHYLENE	127-18-4	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	7	23	9	27	9	27
PETROL	8006-61-9	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	2	7	6	20	6	20
PETROLEUM ETHER	8032-32-4	9	30	9	30	9	30	9	30	9	30	9	30	9	30	9	30	18	60	39	130	39	130
PHENOL	108-95-2	2	6	2	6	2	6	2	6	2	6	2	6	2	6	2	6	4	8	8	10	8	10
PHENYL ALCOHOL	108-95-2	2	6	2	6	2	6	2	6	2	6	2	6	2	6	2	6	4	8	8	10	8	10
PHENYL HYDRIDE	71-43-2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	2	2	3	2	3
PHENYLETHANE	100-41-4	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	2	2	4	2	4
PHOSPHORIC ACID (85%)	7664-38-2	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240
POTASSIUM HYDROXIDE (45%)	1310-58-3	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240
PROPANEAMIDE (50%)	79-06-1	>120	>240	>120	>240	>120	>240	>120	>240	>120	>240	>120	>240	>120	>240	>120	>240	>240	>240	>480	>240	>480	>240
PROPANEDIAMINE, N,N'-DIMETHYL	109-55-7	3	10	3	10	3	10	3	10	3	10	3	10	3	10	3	10	6	20	15	50	15	50
PROPANOL N-	71-23-8	7	12	7	12	7	12	7	12	7	12	7	12	7	12	7	12	10	24	15	48	15	48
PROPANOL, 2-	67-63-0	28	93	28	93	28	93	28	93	28	93	28	93	28	93	28	93	43	143	60	200	60	200
PROPANONE, 2-	67-64-1	<1	2	<1	2	<1	2	<1	2	<1	2	<1	2	<1	2	<1	2	1	4	2	6	2	6
PROPYL ACETATE	109-60-4	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3	2	7	7	15	7	15
PROPYL ALCOHOL	71-23-8	7	12	7	12	7	12	7	12	7	12	7	12	7	12	7	12	10	24	15	48	15	48
PROPYL CARBINOL	71-36-3	13	43	13	43	13	43	13	43	13	43	13	43	13	43	13	43	17	57	24	80	24	80
PROPYL CELLOSOLVE N-	2807-30-9	6	8	6	8	6	8	6	8	6	8	6	8	6	8	6	8	13	21	25	35	25	35
PROPYLENE GLYCOL	57-55-6	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240	>480	>240
PROPYLENE GLYCOL MONOBUTYL ETHER	5131-66-8	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	8	27	11	36	11	36

CHEMICAL AGENT	CAS Number	SHOWA 7505 / 7540 / 7545 / 7550 / 7555 / 6110 / 7570 / C9905 TTL	SHOWA 7505 / 7540 / 7545 / 7550 / 7555 / 6110 / 7570 / C9905 INT	SHOWA 7565 TTL	SHOWA 7565 INT	SHOWA 7580 / 7585 TTL	SHOWA 7580 / 7585 INT
PROPYLENE OXIDE	75-56-9	<1	1	1	2	2	7
PSEUDOCUMENE	95-63-6	3	11	7	22	13	84
P-TERT BUTYL TOLUENE	98-51-1	11	37	14	47	20	67
PYRIDINE	7291-22-7	<1	1	1	2	1	6
ROUNDUP (CONCENTRATED)	1071-83-6	>480	>240	>480	>240	>480	>240
SAFROTIN	31218-83-4	>120	>240	>240	>240	>480	>240
SHELL AEROSHELL GREASE 22	56280-00-0	>480	>240	>480	>240	>480	>240
SHELL ALVANIA GREASE 3	57120-00-0	>480	>240	>480	>240	>480	>240
SHELL DIALA OIL AX BASE OIL	60030-00-0	>480	>240	>480	>240	>480	>240
SHELL FIRE & ICE 2000 10W OIL	60015-00-0	>480	>240	>480	>240	>480	>240
SHELL HVI 100 NEUTRAL MQ	63050-00-0	>480	>240	>480	>240	>480	>240
SHELL ROTELLA T MULTI 15W OIL	71630-00-0	>480	>240	>480	>240	>480	>240
SHELL SPIRAX S 85W-140 OIL	86404-00-0	>480	>240	>480	>240	>480	>240
SHELL TURBO T 68 HYDRAULIC FLUID	60220-00-0	>480	>240	>480	>240	>480	>240
SHELLWAX 100	8210-00-0	>480	>240	>480	>240	>480	>240
SKYDROL LD-4 HYDRAULIC FLUID	2528-36-1	27	90	54	180	71	237
SODIUM HYDROXIDE (50%)	1310-73-2	>480	>240	>480	>240	>480	>240
STODDARD SOLVENT	8052-41-3	126	>240	252	>240	>480	>240
STYRENE	100-42-5	<1	1	1	3	1	6
SULFURIC ACID (97%)	7664-93-9	8	27	16	53	25	83
TANNIC ACID	1401-55-4	>480	>240	>480	>240	>480	>240
TETRACHLOROETHYLENE	127-18-4	6	20	7	23	9	27
TETRACHLOROMETHANE	56-23-5	1	2	2	6	7	24
TETRAHYDROFURAN	109-99-9	<1	1	1	2	2	7
THF	109-99-9	<1	1	1	2	2	7
TOLUENE	108-88-3	<1	1	1	2	2	5
TOLUENE/MEK MIXTURE (65:3 RATIO) (65%)	90108-88-5	1	3	2	7	7	23
TOLUIDINE,O-	95-53-4	1	3	2	7	4	14
TOLUOL	108-88-3	<1	1	1	2	2	5
TRIBROMOMETHANE	75-25-2	<1	<1	1	2	3	11
TRICHLOROBENZENE 1,2,4-	120-82-1	<1	<1	1	3	4	14
TRICHLOROETHANE 1,1,1-	71-55-6	<1	<1	1	3	2	8
TRICHLOROETHYLENE	79-01-6	<1	<1	1	3	3	11
TRICHLOROFLUOROETHANE	76-13-1	3	10	6	20	12	40
TRICHLOROMETHANE	67-66-3	<1	<1	<1	<1	<1	<1
TRIETHANOLAMINE	102-71-6	9	30	18	60	24	80
TRIETHYLAMINE	121-44-8	10	33	20	67	39	130
TRIETHYLENE GLYCOL MONOBUTYL ETHER	143-22-6	6	20	8	27	11	36
TRIMETHYL BENZENE (98%)	95-63-6	3	11	7	22	13	84
TRIMETHYLPENTANE, 2,2,4-	540-84-1	120	>240	240	>240	389	>240
TURCO 5351 MIXTURE	90075-09-4	1	2	2	7	5	17
TURPENTINE	8006-64-2	52	173	104	>240	152	>240
VINYL ACETATE	108-05-4	1	2	2	7	5	14
VINYL BENZENE	100-42-5	<1	1	1	3	1	6
VINYL CYANIDE	107-13-1	<1	<1	<1	1	<1	3
VINYL PYRROLIDINONE	88-12-0	<1	<1	<1	<1	<1	<1
VINYL STYRENE	1321-74-0	5	17	10	33	20	66
VINYLBUTYROLACTAM	88-12-0	<1	<1	<1	<1	<1	<1
VINYLIDENE CHORIDE	75-35-4	<1	<1	1	2	1	6
XYLENE	1330-20-7	1	2	3	8	5	11

GLOVE SIZE CHART

IT IS CRUCIAL TO GET THE GLOVE SIZE RIGHT FOR MAXIMUM DEXTERITY.

HERE ARE A FEW RECOMMENDATIONS TO HELP YOU IN FINDING THE RIGHT SIZE OF GLOVES YOU NEED.

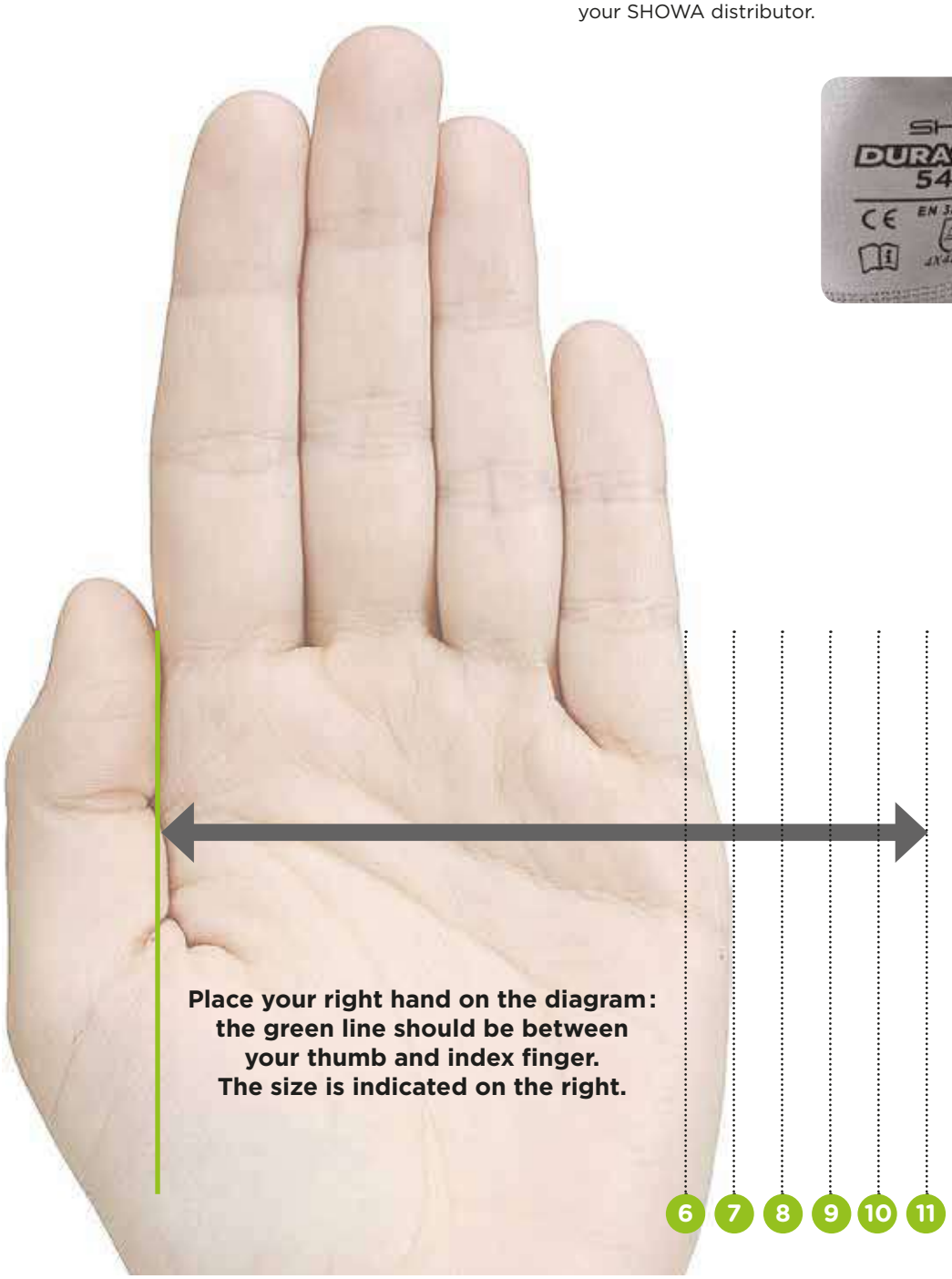
Glove size further to EN 420	Hand (mm)		Glove (mm)
	Palm circumference	Length	Minimum length
6	152	160	220
7	178	171	230
8	203	182	240
9	229	192	250
10	254	204	260
11	279	215	270

COLOUR-CODED CUFF

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

TESTING PRIOR TO USING

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



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4 WEEK TRIAL

4 WEEK TRIAL PROGRAM

Free intricate assessment process designed to identify potential cost savings by:

- Strategic trial plan
- Reducing costs by reducing stock and capital bonding in PPE
- Consolidating products
- Adopting new technologies
- Improving employees safety and satisfaction
- Adopting best practices for use and control

The SHOWA 4WTP consists of a strategic plan whereby glove trials can be managed effectively through 4 timed processes. These processes evaluate the performance of SHOWA a glove vs. an existing glove and indicate user preferences and advantages in terms of comfort, dexterity, fit and longevity. After 4 weeks a cost-efficient custom-made plan for your hand protection needs will be presented.

WEEK 1: INITIAL MEETING

- Visit customer to discuss glove requirements and attributes, assess risks and evaluate protection required.
- Present suggestions together with pertinent information on the product and the features and benefits.
- Once product suggestions are agreed upon, the trial can take place.

WEEK 2: PROVIDING SAMPLES FOR TRIAL

- Personally hand out samples to the individuals selected for trial.
- Test the user for fit and educate on glove qualities
- Advise user on the timescale of the trial (generally 1 week).
- Each person is encouraged to keep the trialled glove samples for inspection in week 3.

WEEK 3: SAMPLES TRIAL EVALUATION

- SHOWA staff interviews each user who trialled the gloves.
- Glove inspection.
- Complete questionnaire about the current glove vs the new SHOWA glove, to compare wear and features.
- User signs trial form.

WEEK 4: HAND PROTECTION PROGRAM

- Recorded feedback on glove trial are presented and evaluated with the customer contact point.
- Following success on glove trial, SHOWA provides an offer to the customers with the recommended products, technical information and datasheet.

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