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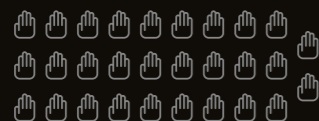


INDUSTRIAL SERIES

EMPLOYEES
WORLDWIDE



PRODUCTION FACILITIES ACROSS THE GLOBE



PATENTS

58

OWNED



100+ RESEARCHERS

100%
integrated manufacturing

1
BRAND

unrivalled protection & innovation
65 YEARS

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TABLE OF CONTENTS



ABOUT SHOWA

- Protect what matters 4
- Our commitment 5



KNOWLEDGE CORNER

- European standards for PPE ... 6



HAND PROTECTION IN FOCUS INDUSTRIES

- Construction industry 10
- Mining industry 14



GENERAL PURPOSE

- Latex 20
- Nitrile 22



CUT PROTECTION

- DURACoil® technology 26
- Cut Level C 28
- S-TEX technology 30
- Cut Level D 32
- Cut Level E 34
- Cut Level F 34
- Cut standards explained 35



CHEMICAL PROTECTION

- Biodegradable nitrile 40
- Eco Best Technology® 41
- Nitrile 42
- PVC 42
- Neoprene 44



INSULATED

- Cold protection 48
- Heat protection 50



SINGLE USE

- Biodegradable nitrile 56
- Cobalt blue nitrile 57
- Chemical resistance guide ... 58



GLOVE SIZE CHART

..... 62



INDEX

..... 63



PROTECT WHAT MATTERS

Hands provide 70% of a person'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



- 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.eu



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



See more at ChemRest.com

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

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

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.



UVWXYZ XYZ
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	Tetrahydrofuran	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 (± 10 mm) 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.



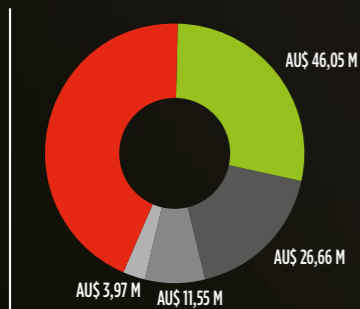
HAND PROTECTION IN THE CONSTRUCTION INDUSTRY

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.**



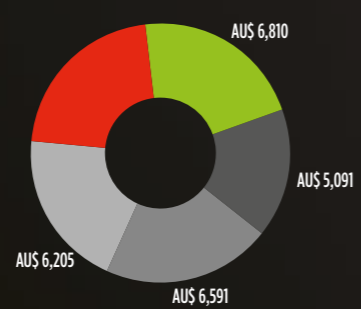
Every year, serious and fatal injuries to workers have a devastating social and emotional impact on victims, their families, their colleagues and the company's management. It makes sense for employees to protect themselves at all times, no matter how small the risk. As we all know, it's better to be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

AU\$ 66,64 M



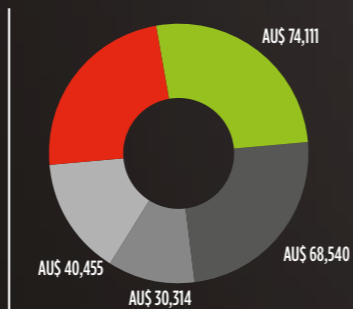
Financial cost of workplace accidents

AU\$ 6,835



Average cost of lost-time accidents (including work-related ill health)

AU\$ 66,371



Average cost of occupational accidents causing permanent disability (including work-related ill health)

■ 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

4% HEAD **2% EYES**
22% ARMS **21% TORSO**

7% of accidents involving hands lead to permanent disability

25% HANDS

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

2% INTERNAL INJURIES **5% MULTIPLE AREAS**
16% LEGS **3% FEET**

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

A COMPLETE & OPTIMISED RANGE

With the multitude of different public sector and building jobs in mind, SHOWA 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 16 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.





HAND PROTECTION IN THE CONSTRUCTION INDUSTRY

	GENERAL PURPOSE				CUT					CHEMICAL		COLD		BIODEGRADABLE SINGLE USE
	380	306	330	377	DURACoil® 346	DURACoil® 546	234	S-TEX 376	S-TEX 581	660	720R	477	406	6112PF



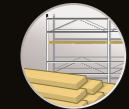
PUBLIC WORK

Driving machines														
Maintenance														
Slings/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														



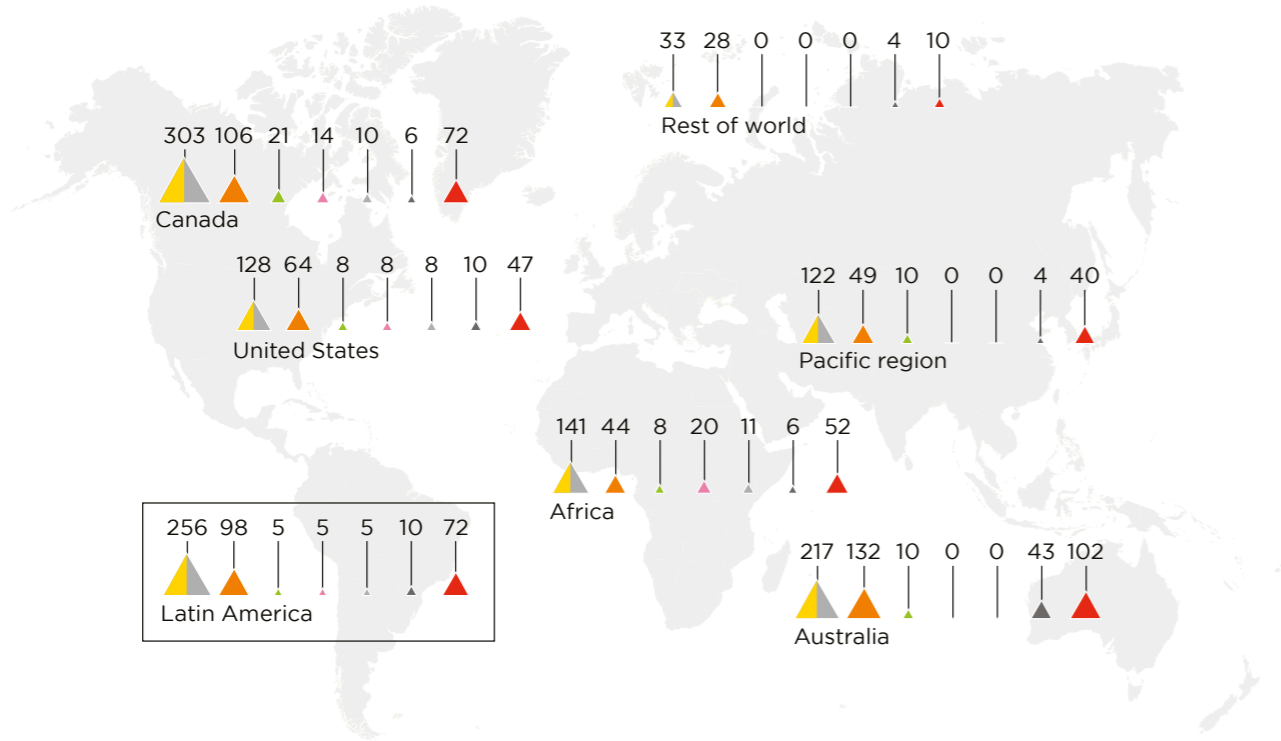
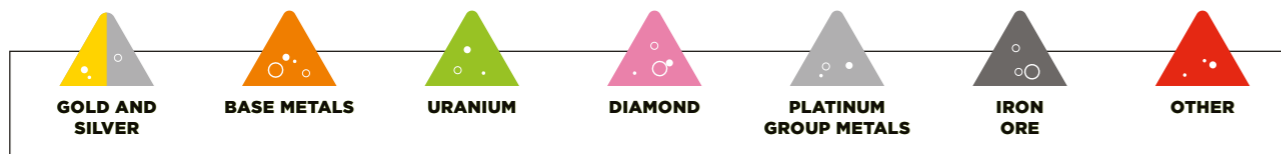
HAND PROTECTION IN THE MINING INDUSTRY

Many countries rely heavily on the supply of underground commodities such as coal, raw minerals, metals and iron ore. Mines and quarries are found in every continent in the world, with Canada, Australia, Latin America and Africa being the most significant players. Canada owns the most active mineral exploration sites, while more than 50% of the silver and copper produced worldwide comes from

South America. South Africa is home to the deepest mine in the world, and even our smallest continent, Australia, employed over 132,000 people in the mining industry.



NUMBER OF ACTIVE MINERAL EXPLORATION SITES WORLDWIDE IN 2017, BY REGION AND TYPE*



WHAT ARE THE RISKS INVOLVED FOR YOUR HANDS?



UV RADIATION

Open-pit mines are fully exposed to the sun and without proper protection, so is our skin. Unfortunately, over-exposure to UV-rays causes melanomas to form, which in turn can lead to skin cancer.

CHEMICAL HAZARDS



There is a multitude of irritant or hazardous substances that miners can encounter; fossil fuels and their by-products, cleaning and organic solvents, metalworking fluids, etc. Contact with the skin may cause burns, dermatitis, irritation and even poisoning.



EXPOSURE TO HARMFUL DUST

Mining dust from coal and finely powdered materials can cause contact dermatitis; the finer particles can penetrate the skin and enter the blood stream, causing systemic toxicity, infections or allergic reactions.

THERMAL STRESS



Temperatures inside and outside the mine can cause major risks. Cold hands becoming numb will lose their dexterity - scary when handling equipment or tools! Heat is also dangerous for naked hands handling tools or hot laboratory samples.



ABRASIONS, CUTS AND LACERATIONS

Hands in the mining industry are exposed to pinch points, sharp edges, splinters, blades and heavy impact from moving parts or machines. The long-term consequences can be serious for victims facing crushed or amputated fingers, hands or arms.

MUSCULOSKELETAL DISORDERS



Mining workers risk musculoskeletal disorders if their hands are overexerted, or frequently struck by objects like stones or tools. The right glove protects when handling materials, performing maintenance and repair tasks, or getting on or off equipment or machines.

For every job and application in the mining and quarry industry

THERE'S A SHOWA GLOVE TO PROTECT YOUR HANDS



1 CONSTRUCTION OF INFRASTRUCTURE



2 EXTRACTION & EXPLORATION



3 CRUSHING & GRINDING



4 TRANSPORT & LOGISTICS



5 GENERAL PURPOSE



6 MAINTENANCE & CLEANING



7 SAMPLE COLLECTION & ANALYSIS



8 RESCUE & EMERGENCY RESPONSE



HAND PROTECTION IN THE MINING INDUSTRY

GENERAL PURPOSE				CUT					CHEMICAL					HEAT	COLD	BIODEGRADABLE SINGLE USE		
				C	C	D	E	F	B	B	A	A	A	A			A	C

EN 388:2016 Cut Levels

EN ISO 374-1:2016 Types

Activity	Task	EN 388:2016 Cut Levels									EN ISO 374-1:2016 Types								
		1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
CONSTRUCTION OF INFRASTRUCTURE	General/ Material Handling	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Construction	●	●						●		●	●							●
EXTRACTION & EXPLORATION	Drilling/ Auxiliary	●									●			●					
	Chemical Leaching & Handling										●		●	●		●			●
	Electro winning												●		●				
	Refining								●				●		●				
	Handling of Copper Cathodes					●		●	●	●									
CRUSHING & GRINDING	Grinding					●			●	●	●		●						
	Screening	●									●								
TRANSPORT & LOGISTICS	Transporting		●	●				●		●									
	Transport & Storage of Chemicals										●		●			●			
GENERAL PURPOSE	Tool Operation			●			●												
	General Purpose	●	●	●	●														
MAINTENANCE & CLEANING	Mechanical Maintenance	●						●					●						●
	Electrical Maintenance						●			●									●
SAMPLE COLLECTION & ANALYSIS	Laboratory of Analysis												●		●		●	●	
	Geology			●															●
RESCUE & EMERGENCY RESPONSE	Emergency Rescue Team							●										●	●
	Clinic																	●	●



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.

- 20. Latex
- 22. Nitrile



LATEX



SHOWA 310 Black

Latex palm coating over polyester/cotton liner

BENEFITS: Reinforced coating on knuckles

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



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

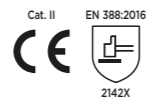
APPLICATIONS:

Scaffolding Logistics
Agriculture Metallurgy
Automotive Public sector
Construction

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



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

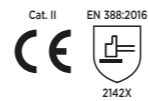
APPLICATIONS:

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	230mm
305	9/L	250mm
305	10/XL	260mm



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



+ WINTER VERSION:
SHOWA 406 - p.49
Double latex coating





NITRILE



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

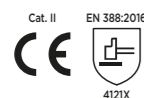
LINER: 13 gauge seamless knit polyester/nylon

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



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

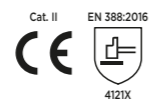
LINER: 13 gauge seamless knit polyester/nylon

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



376R and 377 are also available with cut-resistance and with safety cuffs. See page 33.



SHOWA S-TEX 376SC



SHOWA S-TEX 377SC



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	Automotive
Mechanical	Internal fixing
Maritime sector	

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	230mm
380	8/L	240mm
380	9/XL	260mm



SHOWA 381

Microporous nitrile coating over engineered microfibre liner

BENEFITS:

- Abrasion resistance lasts twice as long 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

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



ENHANCED BREATHABILITY +
BOOST VAPOUR PERMEATION

INCREASED GRIP +
DISPERSES LIQUID AWAY



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.

- 28. Cut Level C
- 32. Cut Level D
- 34. Cut Level E
- 34. Cut Level F



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)

[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?

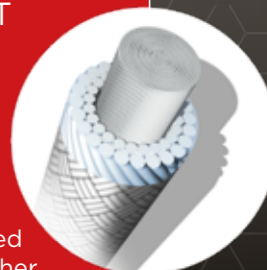
The DURACOIL® liner is engineered by tightly wrapping multifilament polyester around a cut resistant fiber, then reinforcing it with High-Performance Polyethylene (HPPE). The technique is very important to user comfort; if not done correctly, the fibers will irritate the skin. This therefore creates 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		✘					✘



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

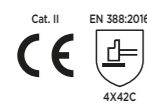
APPLICATIONS:

Aerospace	Mechanical
Automotive	Metallurgy
Engineering	Railways
Glass	Warehousing
Manufacturing	

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



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 identify 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	Manufacturing
Automotive	Mechanical
Cleanrooms	Metallurgy
Laboratory	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



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 identify 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



SHOWA DURACoil® 346

Latex coating over 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

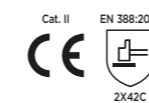
APPLICATIONS:

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



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

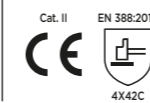
APPLICATIONS:

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



SHOWA DURACoil® 576

Foamed nitrile on ¾ 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	240mm	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



(S-TEX)

COMFORT AND SAFETY GO HAND IN HAND

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

THE STORY OF HAGANE COIL®

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

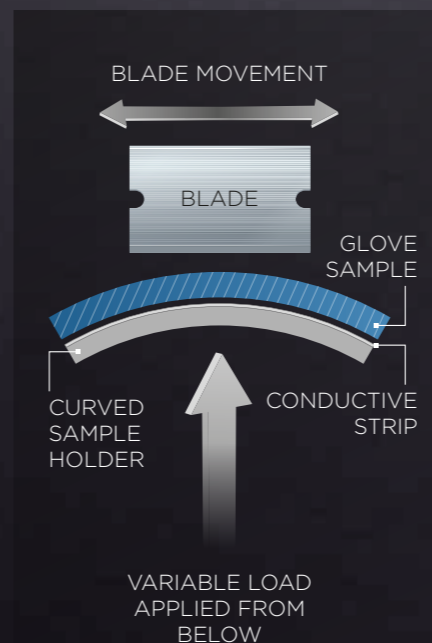
Development of new cut-resistant technology follows increasing demand for higher cut-resistant protection in work processes. While measuring the levels of cut resistance of different materials in the mesh of the glove, it became evident to our researchers that integration of stainless steel in liners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

STEEL PROTECTION

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



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



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

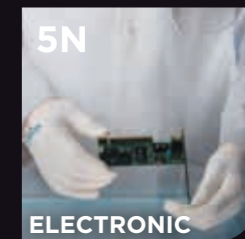
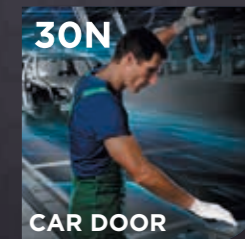
At SHOWA, for gloves with high levels of protection we have already been using ISO 13997 as a compulsory test to show our customer a detailed and realistic view of the glove's cut protection performance.



S-TEX SERIES p. 33-34

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
 EN 388: 2016 Cut Level F
- 
SHOWA S-TEX 581
 Hagane Coil® / Microporous foam nitrile
 EN 388: 2016 Cut Level E
- 
SHOWA S-TEX 376
 Hagane Coil® / Foam nitrile over nitrile
 EN 388: 2016 Cut Level D
- 
SHOWA S-TEX 377
 Hagane Coil® / Foam nitrile over nitrile
 EN 388: 2016 Cut Level D
- 
SHOWA S-TEX 376SC
 Hagane Coil® / Foam nitrile over nitrile
 EN 388: 2016 Cut Level D
- 
SHOWA S-TEX 377SC
 Hagane Coil® / Foam nitrile over nitrile
 EN 388: 2016 Cut Level D





CUT LEVEL D



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

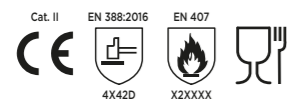
APPLICATIONS:

Automotive	Glass
Construction	Municipal Services
Food	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



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

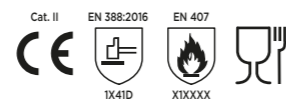
APPLICATIONS:

Automotive	Glass
Construction	Mechanical
Food	

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



SHOWA
S-TEX 376

Dual nitrile coating technology, 3/4 nitrile dipped with 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	REF.	SIZE	LENGTH
S-TEX 376	6/S	220mm	S-TEX 377	6/S	220mm
S-TEX 376	7/M	240mm	S-TEX 377	7/M	240mm
S-TEX 376	8/L	250mm	S-TEX 377	8/L	250mm
S-TEX 376	9/XL	260mm	S-TEX 377	9/XL	260mm
S-TEX 376	10/XXL	270mm	S-TEX 377	10/XXL	270mm



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
 ✦ Safety cuff for extended wrist protection and easy removal

REF.	SIZE	LENGTH	REF.	SIZE	LENGTH
S-TEX 376SC	7/M	300mm	S-TEX 377SC	7/M	300mm
S-TEX 376SC	8/L	300mm	S-TEX 377SC	8/L	300mm
S-TEX 376SC	9/XL	310mm	S-TEX 377SC	9/XL	310mm
S-TEX 376SC	10/XXL	310mm	S-TEX 377SC	10/XXL	310mm



SHOWA **S-TEX 376SC**

Dual nitrile coating technology, 3/4 nitrile dipped 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

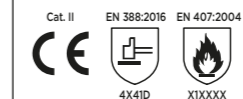
APPLICATIONS:

Automotive	Metal Stamping
Glass	Public Utilities
Manufacturing	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	REF.	SIZE	LENGTH
S-TEX 376SC	7/M	300mm	S-TEX 377SC	7/M	300mm
S-TEX 376SC	8/L	300mm	S-TEX 377SC	8/L	300mm
S-TEX 376SC	9/XL	310mm	S-TEX 377SC	9/XL	310mm
S-TEX 376SC	10/XXL	310mm	S-TEX 377SC	10/XXL	310mm



SHOWA **S-TEX 377SC**

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

BENEFITS: 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

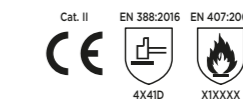
APPLICATIONS:

Automotive	Metal Stamping
Glass	Public Utilities
Manufacturing	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	REF.	SIZE	LENGTH
S-TEX 376SC	7/M	300mm	S-TEX 377SC	7/M	300mm
S-TEX 376SC	8/L	300mm	S-TEX 377SC	8/L	300mm
S-TEX 376SC	9/XL	310mm	S-TEX 377SC	9/XL	310mm
S-TEX 376SC	10/XXL	310mm	S-TEX 377SC	10/XXL	310mm





CUT LEVEL E



SHOWA S-TEX 581

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

BENEFITS: 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

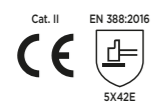
APPLICATIONS:

Construction	Glass and glazing
Automotive	Bottling
Stamping	Metallurgy
Masonry	

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



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



CUT LEVEL F



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

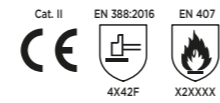
APPLICATIONS:

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



WHAT YOU NEED TO KNOW ABOUT THE NEW GLOBAL CUT STANDARDS

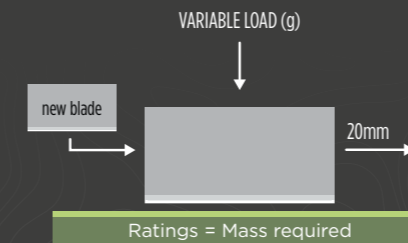
EN 388: 2016 (ISO 13997)

- 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

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

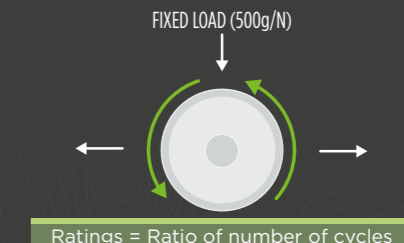
DIFFERENT TESTING METHODS

TDM-100 CUT MACHINE



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



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)

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



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

NEW

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



CHEMICAL PROTECTION

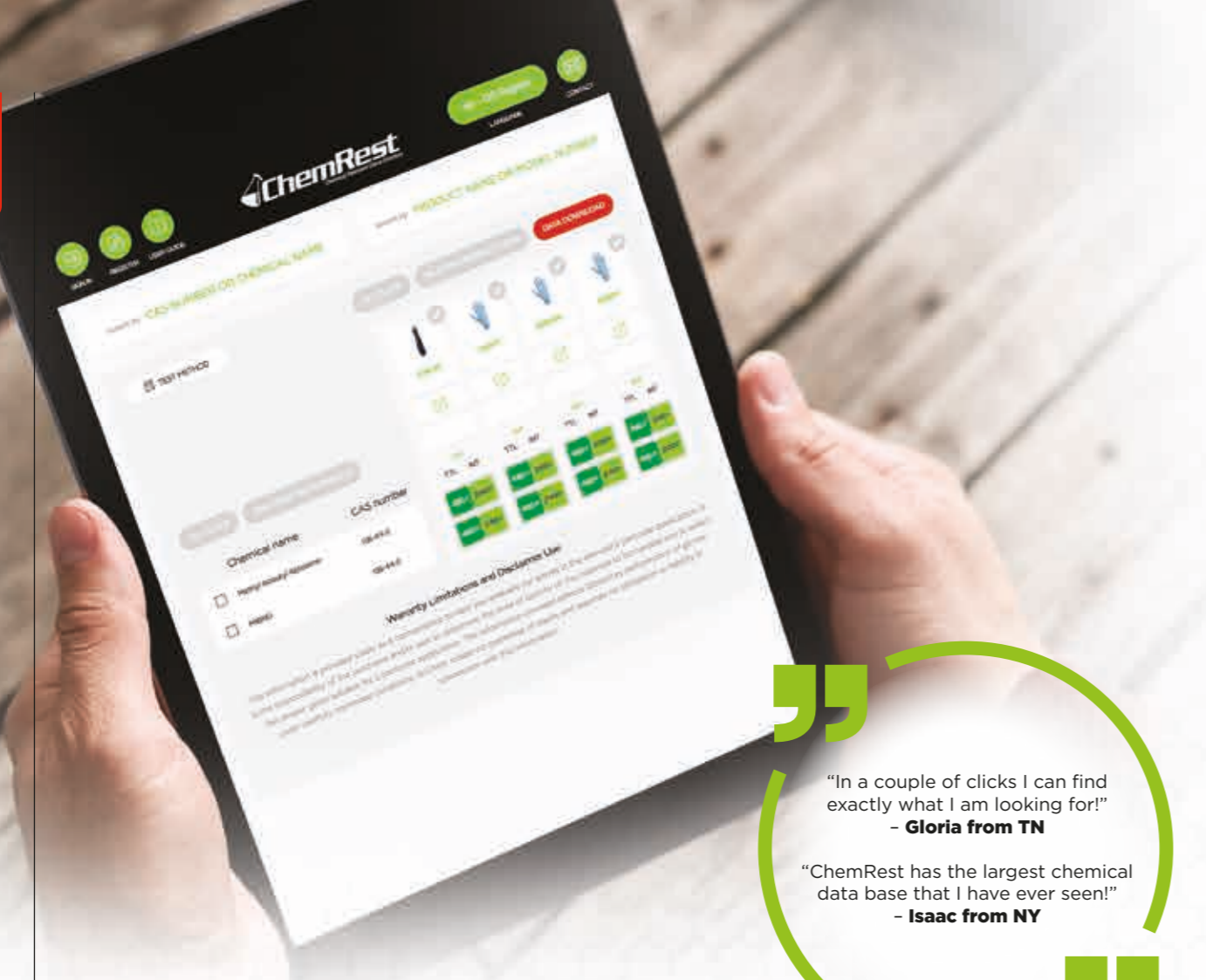
To protect the hands from direct contact with oils, hydrocarbons, acids and corrosive substances, we provide the solutions to whatever conditions you may be working in.

Our chemical resistance guide and website www.chemrest.com features chemical permeation and testing information for over 300 individual chemicals.

 ChemRest.com

- 40. Biodegradable Nitrile
- 42. Nitrile
- 42. PVC
- 44. Neoprene





HOW TO USE CHEMREST.COM



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.

“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



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**

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 +1 706-862-2302





BIODEGRADABLE NITRILE



SHOWA 707HVO

Unsupported, unlined, biodegradable nitrile (EBT) in high-visibility orange

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
- Engineered with EBT, which achieved 82.0% biodegradation in 386 days

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



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
- Engineered with EBT, which achieved 82.0% biodegradation in 386 days

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



SHOWA NSK 24

Biodegradable nitrile coating (EBT) with rough finish on the hand over cotton/polyester 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
- Engineered with EBT, which achieved 82.0% biodegradation in 386 days

APPLICATIONS:

Food
Chemical
Oil-based
Fishing
Agriculture
Petrochemical

FEATURES

LINER: Seamless knit cotton/polyester
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



PROTECTION AND PRESERVATION IN ONE

Sustainability isn't just a commitment - it's part of SHOWA's legacy. Our revolutionary Eco Biodegradable 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**

REGULAR NITRILE 100+ YEARS

SHOWA EBT 1-5 YEARS

SAME PERFORMANCE, QUICKER DEGRADATION*

BIODEGRADATION PROCESS

EBT Materials

Glove Disposal

Microorganism Decomposition

SHOWA EBT Nitrile

COMPETITOR Nitrile

SHOWA Natural Output

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.



NITRILE



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	Fishing
Chemical	Agriculture
Oil-based	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



PVC



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	Painting
Chemical	Public works
Laboratory and pharmaceutical	Petrochemical
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



SHOWA 660

Full PVC coating with extra rough finish over cotton liner

BENEFITS:

- Provides heavy-duty defense against chemicals and abrasion
- Soft cotton liner absorbs perspiration and prevents odors for comfortable wear
- Offers high-performance grip and tactile feel in greasy and damp environments
- Mimics the curvature of a human hand to reduce fatigue
- No skin irritation

APPLICATIONS:

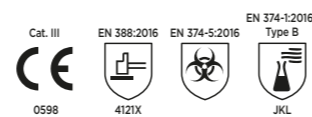
Chemical industry	Painting
Construction	Public works
Fishing & agriculture	Petrochemical
Metallurgy	

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



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, surface resistivity $6 \times 10^8 \Omega$
- 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



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 F1383 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.



NEOPRENE



SHOWA 6784R

Full neoprene coating with rough grip over cotton liner

BENEFITS: designed for comfort in hot or cold environments while providing protection against acids and caustics

- Cotton liner helps keep you cool and comfortable in hot conditions or warm in cold conditions
- Provides protection against acids, caustics, oils, greases and many solvents
- Excellent all-around protection against physical hazards such as abrasion and cut
- Rough finish is excellent for applications where a good wet grip is required

APPLICATIONS:

Automotive
Chemicals
Mining
Mechanical
Oil & gas

FEATURES

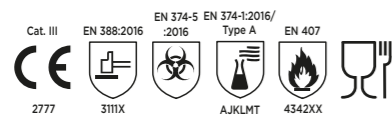
LINER: Cotton

COATING: Neoprene

GRIP: Rough

✦ : Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
6784R	L	355mm



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 glove 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

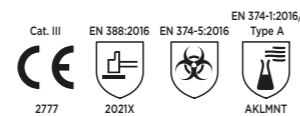
LINER: Cotton flocked

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



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

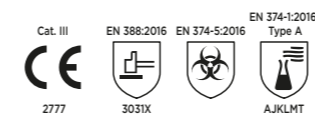
LINER: 15 gauge seamless knit polyester

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



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



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



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.

- 48. Nitrile
- 48. PVC
- 49. Latex

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.

- 50. Neoprene
- 50. Nitrile
- 51. Uncoated



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

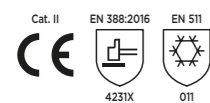
LINER: Seamless knit polyester/nylon/insulated acrylic liner

COATING: Nitrile/nitrile foam

GRIP: Foam

✦ Ergonomic design hand mould that replicates the natural curves

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



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	Fishing
Petrochemical	Logistics
Transport	

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



SHOWA
495

Full PVC coating, extra coating on entire hand over cotton/removable 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
- Impermeable for working in damp or greasy environments, enables a secure grip
- Extended protection on the forearm
- Removable acrylic lining
- Flexible and soft PVC for ultra-comfort
- Designed for easy movement and continuous wear

APPLICATIONS:

Agriculture	Mechanical
Construction	Petrochemical
Commercial Fishing	Transportation
Airports & Ports	

FEATURES

LINER: Seamless knit removable acrylic lining/cotton knit

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



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

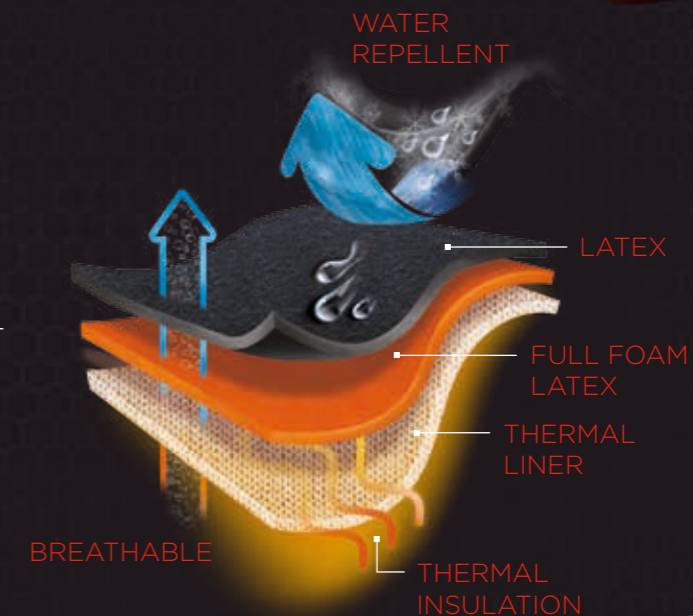
FEATURES

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



+ GENERAL PURPOSE VERSION:
SHOWA 306 - p.21
Double latex coating



HEAT PROTECTION



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

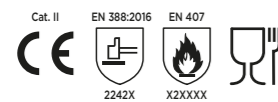
APPLICATIONS:

Automotive	Laboratory
Food processing	Metallurgy
Hot metal sheets	Mining
Castings	
Bakery	

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



SHOWA
6784R

Full neoprene coating with rough grip over cotton flocked liner

BENEFITS: designed for comfort in hot or cold environments while providing protection against acids and caustics

- Cotton liner helps keep you cool and comfortable in hot conditions or warm in cold conditions
- Provides protection against acids, caustics, oils, greases and many solvents
- Excellent all-around protection against physical hazards such as abrasion and cut
- Rough finish is excellent for applications where a good wet grip is required

APPLICATIONS:

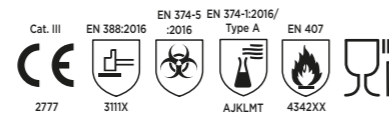
Automotive	Mechanical
Chemicals	Oil & gas
Mining	

FEATURES

LINER: Cotton flocked
COATING: Neoprene
GRIP: Rough

✦: Ergonomic design hand mould that replicates the natural curves

REF.	SIZE	LENGTH
6784R	L	355mm



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

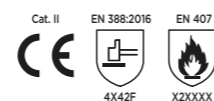
APPLICATIONS:

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



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

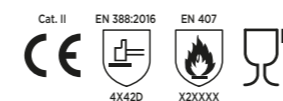
APPLICATIONS:

Automotive	Glass
Construction	Municipal Services
Food	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



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

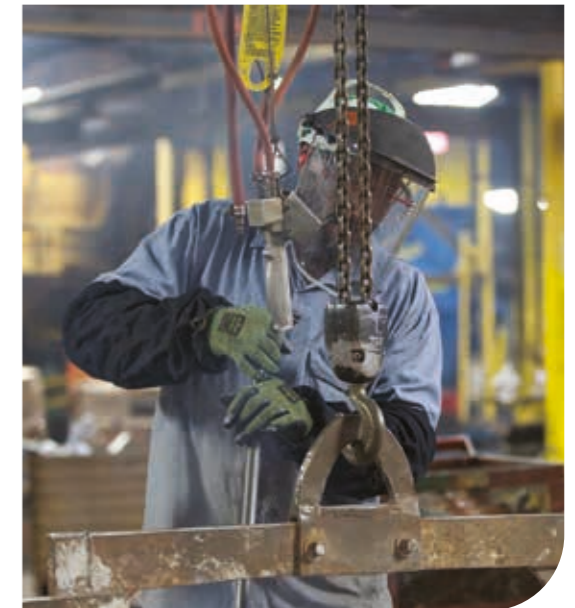
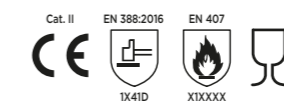
APPLICATIONS:

Automotive	Glass
Construction	Mechanical
Food	

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





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.

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.

- 56. Biodegradable nitrile
- 57. Cobalt blue nitrile



SHOWA SINGLE USE NITRILE RANGE

Combining years of expertise and market insight, SHOWA brings you the most comprehensive single use nitrile solution. The range offers a broad choice of single use gloves, 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
- EBT gloves achieved 82% biodegradation in 386 days
- Food contact approved
- 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
- Engineered for accelerated biodegradation in active landfills
- Approved for food contact
- 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



6110PF



6112PF



7500PF



7502PF



7585

	6110PF	6112PF	7500PF	7502PF	7585
THICKNESS (mm)	0.10	0.10	0.10	0.06	0.20
LENGTH (mm)	240	240	240	240	300
SIZES	XS-XXL	XS-XXL	XS-XXL	XS-XXL	S-XXL
CE CATEGORY	III	III	III	III	III
EN 388					2001X
EN 374-5	•	•	•	•	•
EN 374-1	KPT	KPT	JKPT		JKL
EN 455					•
FOOD APPROVED (EC No. 1935/2004)	•	•	•	•	•
EN 1149		•			
SILICONE FREE			•		•
ACCELERATOR FREE				•	
TENSILE STRENGTH (MPa)	Min. 14,0	Min. 14,0	Min. 14,0	Min. 14,0	Min. 14,0
ELONGATION AT BREAK (% MIN.)	500	500	500	500	500
FORCE AT BREAK (N)	≥ 6	≥ 6	≥ 6	≥ 6	≥ 20
GLOVES PER DISPENSER	100	100	100	200	50
DISPENSERS PER CARTON	10	10	10	10	20



BIODEGRADABLE NITRILE



SHOWA 6110PF

Biodegradable single use glove, 100% nitrile, powder-free, 240mm long and 0.10mm thick

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

- EBT maintain the same properties as regular nitrile
- Engineered with Eco Best Technology, which achieved 82.0% biodegradation in 386 days
- 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

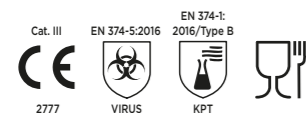
APPLICATIONS:

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

FEATURES

COATING: Biodegradable nitrile
THICKNESS: 0.10mm
GRIP: Smooth

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



SHOWA 6112PF

Biodegradable single use glove, 100% nitrile, antistatic properties, powder-free, 240mm long and 0,10mm thick

BENEFITS:

- Proven protection against Fentanyl and viral risks
- Antistatic properties: surface resistivity between 10^9 and $10^{10}\Omega$
- Extremely lightweight without compromising performance
- Engineered with EBT, which achieved 82.0% biodegradation in 386 days
- Low-modulus formulation to improve fit and reduce fatigue
- Easy to put on and remove
- No latex allergy-risks

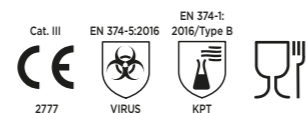
APPLICATIONS:

Pharmaceuticals Municipal
Food Services
Healthcare Construction
Agriculture Utilities
Automotive

FEATURES

COATING: Biodegradable nitrile
THICKNESS: 0.10mm
GRIP: Smooth

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



SHOWA 7500PF

Biodegradable single use glove, 100% nitrile, silicone-free, powder-free, 240mm long and 0,10mm thick

BENEFITS:

- Protects from a wide array of chemical hazards while avoiding type I and type IV latex allergies
- Extremely lightweight without compromising performance
- Engineered with EBT, which achieved 82.0% biodegradation in 386 days
- Low-modulus formulation to improve fit and reduce fatigue
- Easy to put on and remove
- No latex allergy-risks

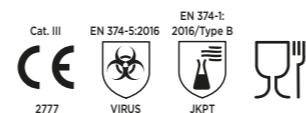
APPLICATIONS:

Automotive
Chemical
Electronics
Laboratory
Food
Healthcare
Warehouse & distribution

FEATURES

COATING: Biodegradable nitrile
THICKNESS: 0.10mm
GRIP: Smooth

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



SHOWA 7502PF

Biodegradable single use glove, 100% nitrile, accelerator-free, powder-free, 240mm long and 0,06mm thick

BENEFITS:

- Accelerator-free formulation protects very sensitive skin
- Good chemical protection while avoiding allergies (latex, dermatitis)
- Ultra-thin and lightweight without compromising performance
- Engineered with EBT, which achieved 82.0% biodegradation in 386 days
- Low-modulus formulation to improve fit and reduce fatigue
- Easy to put on and remove
- No latex allergy-risks

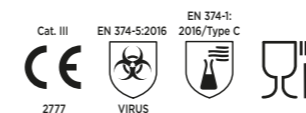
APPLICATIONS:

Pharmaceuticals
Laboratory
Food Processing
HoReCa
Agriculture

FEATURES

COATING: Biodegradable nitrile
THICKNESS: 0.06mm
GRIP: Smooth

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



COBALT BLUE NITRILE



SHOWA 7585

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

BENEFITS:

- 0.20mm thickness provides great resistance to chemicals
- Avoids latex allergies risks type I and type IV
- High protection performance against penetration and projection of chemicals
- Chlorinated glove offers more comfort and to reduce tackiness
- Second skin feel, softer texture and easy donning
- Low-modulus formulation to improve fit and reduce fatigue
- Textured finish on fingertips to enhance grip
- Dual labelling: PPE and medical device

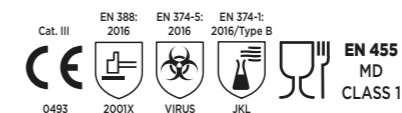
APPLICATIONS:

Aerospace Laboratory
Automotive Pharmaceutical
Chemical Printing
Electronics Cytostatics
Food/ HoReCa Painting & spraying
Healthcare Glass manufacturing

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





CHEMICAL RESISTANCE GUIDE

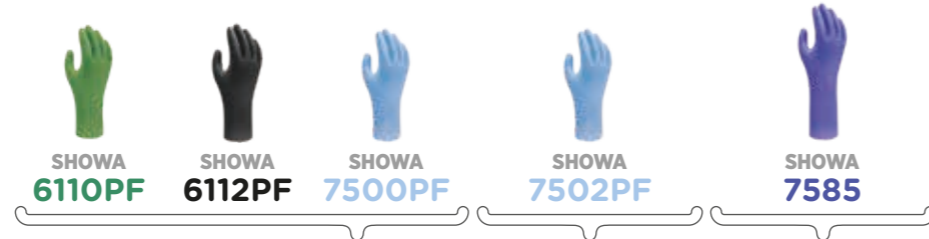
SINGLE USE NITRILE SERIES

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

BREAKTHROUGH TIME	PERFORMANCE LEVEL	RECOMMENDATION
≤ 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	<1	1	6
ACETIC ACID (84%)	64-19-7	4	<1	2	<1	29	98
ACETONE	67-64-1	<1	<1	<1	<1	2	6
ACETONITRILE	75-05-8	<1	<1	<1	<1	7	15
ACETOXYACETYL CHLORIDE	13831-31-7	2	2	1	1	15	30
ACRYLONITRILE	107-13-1	<1	<1	<1	<1	<1	3
ALLYL ALCOHOL	107-18-6	4	4	1	1	4	16
AMMONIUM HYDROXIDE (29%)	1336-21-6	2	<1	1	<1	54	164
AMYL ACETATE	628-63-7	<1	<1	<1	<1	3	11
AMYL ALCOHOL	71-41-0	23	26	9	10	72	149
ANILINE	62-53-3	<1	<1	<1	<1	<1	3
BENZALDEHYDE	100-52-7	1	1	<1	<1	9	31
BENZENE	71-43-2	<1	<1	<1	<1	2	3
BENZYL ALCOHOL	100-51-6	<1	<1	<1	<1	6	20
BROMOETHYL ACETATE, 2-	927-68-4	1	1	<1	<1	7	35
BROMOFORM	75-25-2	<1	<1	<1	<1	3	11
BUTANOL, 1-	71-36-3	33	53	11	13	24	80
BUTYL ACETATE	123-86-4	1	1	<1	<1	<1	<1
BUTYL ACRYLATE	141-32-2	1	1	<1	<1	4	6
BUTYL TOLUENE P-TERT-	98-51-1	7	14	3	7	20	67
BUTYLAMINE	109-73-9	<1	<1	<1	<1	<1	<1
CARBON TETRACHLORIDE	56-23-5	2	2	<1	<1	7	24
CHLOROBENZENE	108-90-7	<1	<1	<1	<1	2	6
CHLOROFORM	67-66-3	<1	<1	<1	<1	<1	<1
CHROMIC ACID 50%	1333-82-0	<1	<1	<1	<1	<1	<1
CRESOLS	1319-77-3	<1	<1	<1	<1	<1	<1

CHEMICAL AGENT	CAS Number	SHOWA 6110PF		SHOWA 6112PF		SHOWA 7500PF		SHOWA 7502PF		SHOWA 7585	
		TTL	INT	TTL	INT	TTL	INT	TTL	INT	TTL	INT
CUMENE	98-82-8	1	1	<1	<1	9	14				
CYCLOHEXANE	110-82-7	88	>240	13	51	38	>240				
CYCLOHEXANOL	108-93-0	54	157	19	58	275	>240				
CYCLOHEXANONE	108-94-1	1	1	<1	<1	2	6				
DIACETONE ALCOHOL	123-42-4	<1	<1	<1	<1	<1	<1				
DIBUTYL PHTHALATE N-	84-74-2	50	55	18	20	120	>240				
DICHLOROBENZENE O-	95-50-1	<1	<1	<1	<1	<1	<1				
DICHLOROETHANE 1,2-	107-06-2	<1	<1	<1	<1	4	15				
DIETHANOLAMINE	111-42-2	15	18	6	7	128	>240				
DIETHYLAMINE	109-89-7	<1	<1	<1	<1	4	10				
DIETHYL ETHER	60-29-7	<1	<1	<1	<1	2	3				
DI-ISOBUTYL KETONE	108-83-8	9	11	2	2	74	>240				
DIMETHYL FORMAMIDE-N, N	68-12-2	1	1	<1	<1	3	9				
DIMETHYL SULFATE	77-78-1	2	2	1	1	30	40				
DIMETHYLACETAMIDE N,N-	127-19-5	1	1	<1	<1	9	30				
DIMETHYLSULFOXIDE	67-68-5	6	7	2	2	61	204				
DIOXANE 1,4-	123-91-1	1	1	<1	<1	7	14				
DIVINYL BENZENE	1321-74-0	2	2	1	1	20	66				
ETHANOL	64-17-5	14	15	1	1	24	80				
ETHANOLAMINE	141-43-5	2	2	3	3	24	80				
ETHYL ACETATE	141-78-6	<1	<1	<1	<1	4	14				
ETHYL BENZENE	100-41-4	1	1	<1	<1	2	4				
ETHYL BUTANOL	97-95-0	<1	<1	<1	<1	3	11				
ETHYLAMINE	75-04-7	<1	<1	<1	<1	<1	<1				
ETHYLENE GLYCOL BUTYL ETHER	111-76-2	16	22	4	4	>480	>240				
ETHYLENEDIAMINE (99%)	107-15-3	<1	<1	<1	<1	4	13				
FORMALDEHYDE (37%)	50-00-0	18	21	7	8	>480	>240				
FURFURAL	98-01-1	<1	<1	<1	<1	2	9				
GLUTARALDEHYDE (50%)	111-30-8	30	100	8	12	120	>240				
HEPTANE	142-82-5	222	>240	20	58	100	>240				
HEXANE	110-54-3	79	>240	12	42	20	85				
HEXENE	592-41-6	8	15	<1	<1	<1	<1				
HYDROCHLORIC ACID (37%)	7647-01-0	116	>120	65	>120	>480	>240				
HYDROFLUORIC ACID (48%)	7664-39-3	1	1	<1	<1	19	50				
HYDROGEN PEROXIDE (30%)	7722-84-1	13	<30	5	>10	>480	>240				
ISO AMYL ACETATE	123-92-2	<1	<1	<1	<1	3	7				
ISO AMYL ALCOHOL	123-51-3	30	33	<1	<1	5	6				
ISO-BUTANOL	78-83-1	44	71	14	19	88	>240				
ISO-OCTANE	540-84-1	103	>240	39	98	389	>240				
ISOPROPYL ACETATE	108-21-4	1	1	<1	<1	5	10				
ISOPROPYL ALCOHOL	67-63-0	44	63	13	23	60	200				
LIMONENE D-	5989-27-5	3	3	2	2	31	>240				
METHANOL	67-56-1	2	3	<1	<1	7	13				
METHYL ACETATE	79-20-9	<1	<1	<1	<1	3	3				
METHYL ETHYL KETONE	78-93-3	<1	<1	<1	<1	2	5				
METHYL ETHYL KETOXIME	96-29-7	38	40	15	16	76	>240				
METHYL IODIDE	74-88-4	<1	<1	<1	<1	<1	2				
METHYL ISOBUTYL KETONE	108-10-1	<1	1	<1	<1	5	15				
METHYL METHACRYLATE	80-62-6	2	2	<1	<1	3	9				
METHYL PROPYL KETONE	107-87-9	<1	<1	<1	<1	3	10				



SHOWA 6110PF SHOWA 6112PF SHOWA 7500PF SHOWA 7502PF SHOWA 7585

CHEMICAL AGENT	CAS Number	TTL	INT	TTL	INT	TTL	INT
METHYLENE CHLORIDE	75-09-2	<1	<1	<1	<1	1	4
METHYL-TERT-BUTYL ETHER	1634-04-4	5	6	<1	<1	<1	<1
MORPHOLINE	110-91-8	<1	<1	<1	<1	<1	<1
NAPHTHA	8032-32-4	7	43	2	3	39	130
NITRIC ACID (23%)	7697-37-2	162	>240	61	>120	>480	>240
NITRIC ACID (70%)	7697-37-2	<1	<1	1	1	5	18
NITROBENZENE	98-95-3	1	1	<1	<1	2	9
NITROMETHANE	75-52-5	<1	<1	<1	<1	3	5
NITROPROPANE	79-46-9	<1	<1	<1	<1	<1	<1
N-METHYL-2-PYRROLIDON	872-50-4	3	3	1	1	7	24
OCTANOL N-	111-87-5	14	16	22	26	>480	>240
OLEIC ACID (98%)	112-80-1	>480	>240	>120	>240	>480	>240
OXALIC ACID (S)	144-62-7	>480	>480	>480	>480	>480	>240
PENTANE	109-66-0	52	173	7	26	21	59
PERACETIC ACID (39%)	79-21-0	<1	<1	<1	<1	13	44
PHENOL, ~100% (S)	108-95-2	10	10	4	4	8	10
PHOSPHORIC ACID (85%)	7664-38-2	>480	>480	>480	>480	>480	>240
POTASSIUM HYDROXIDE (45%)	1310-58-3	>480	>480	>480	>480	>480	>240
PROPANEDIAMINE, N,N'-DIMETHYL	109-55-7	2	2	1	1	15	50
PROPANOL 1-	71-23-8	19	28	2	2	15	48
PROPYLENE GLYCOL	57-55-6	> 480	> 240	> 120	> 240	>480	>240
PROPYLENE GLYCOL MONOBUTYL ETHER	5131-66-8	10	14	3	4	11	36
PSEUDOCUMENE	95-63-6	1	1	<1	<1	13	84
PYRIDINE	110-86-1	1	1	<1	<1	1	6
SODIUM HYDROXIDE (50%)	1310-73-2	>480	>480	>480	>480	>480	>240
STODDARD SOLVENT	8052-41-3	109	>240	41	118	>480	>240
STYRENE	100-42-5	<1	<1	<1	<1	1	6
SULFURIC ACID (97%)	7664-93-9	7	7	2	2	25	83
TETRACHLOROETHYLENE	127-18-4	1	2	<1	<1	9	27
Tetrahydrofuran	109-99-9	<1	<1	<1	<1	2	7
TOLUENE	108-88-3	<1	<1	<1	<1	2	5
TRICHLOROBENZENE 1,2,4-	120-82-1	<1	<1	<1	<1	4	14
TRICHLOROETHANE 1,1,1-	71-55-6	<1	<1	<1	<1	2	8
TRICHLOROETHYLENE	79-01-6	<1	<1	<1	<1	3	11
TRICHLOROFLUOROETHANE	76-13-1	<1	<1	<1	<1	12	40
TRIETHANOLAMINE	102-71-6	7	21	3	8	24	80
TRIETHYLAMINE	121-44-8	7	23	3	8	39	130
TRIETHYLENE GLYCOL MONOBUTYL ETHER	143-22-6	5	6	2	3	11	36
TURPENTINE	8006-64-2	55	148	21	56	152	>240
VINYL ACETATE	108-05-4	<1	<1	<1	<1	5	14
VINYL PYRROLIDINONE	88-12-0	<1	<1	<1	<1	<1	<1
VINYLDENE CHORIDE	75-35-4	<1	<1	<1	<1	1	6
XYLENE	1330-20-7	1	1	<1	<1	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.

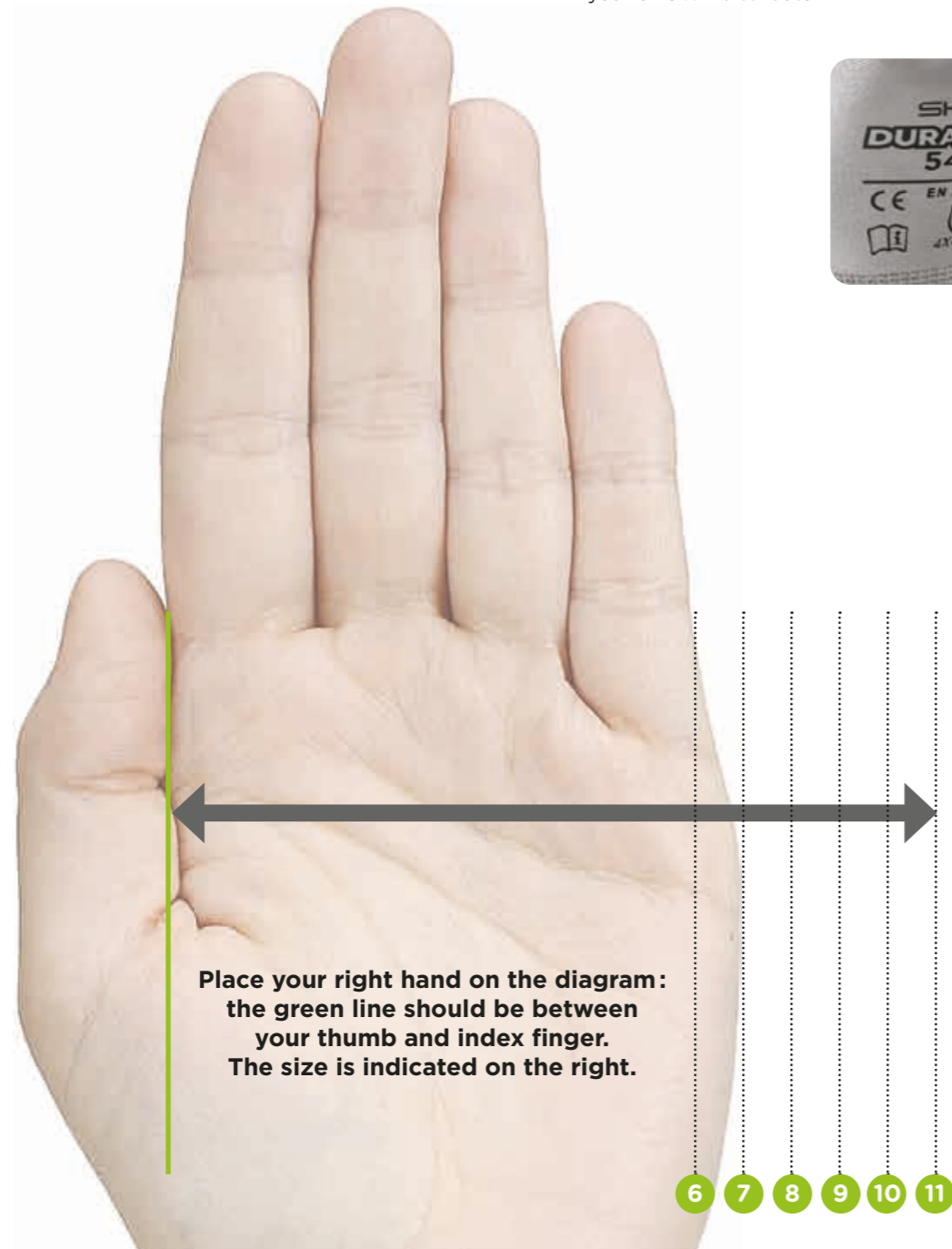
Glove size further to EN 420	Hand (mm)		Glove (mm) Minimum length
	Palm circumference	Length	
6	152	160	220
7	178	171	230
8	203	182	240
9	229	192	250
10	254	204	260
11	279	215	270

COLOUR-CODED CUFF

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

TESTING PRIOR TO USING

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



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

[INDEX]

ART N°	Page
234.....	32, 51
234X.....	32, 51
257.....	34, 50
305.....	20
306.....	21
310.....	20
330.....	20
376R.....	22
377.....	22
380.....	22
381.....	23
406.....	49
460.....	48
477.....	48
490.....	48
660.....	42
660ESD.....	43
707D.....	42
707HVO.....	40
731.....	40
3415.....	45
3416.....	34, 45
6110PF.....	56
6112PF.....	56
6784R.....	44, 50
7500PF.....	56
7502PF.....	57
7585.....	57
8814.....	50
CHM.....	44
DURACOIL® 546.....	28
DURACOIL® 546W.....	28
DURACOIL® 546X.....	28
DURACOIL® 346.....	29
DURACOIL® 386.....	29
DURACOIL® 576.....	29
DURACOIL® 577.....	29
NSK 24.....	40
NSK 26.....	42
S-TEX 376.....	33
S-TEX 376SC.....	33
S-TEX 377.....	33
S-TEX 377SC.....	33
S-TEX 581.....	34

4 WEEK TRIAL

4 WEEK TRIAL PROGRAM

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

- ✕ Strategic trial plan
- ✕ Adopting new technologies
- ✕ Reducing costs by reducing stock and capital bonding in PPE
- ✕ Improving employees safety and satisfaction
- ✕ Consolidating products
- ✕ 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.