SHOWA
Always Innovating. Never Imitating.

8
PRODUCTION FACILITIES ACROSS THE GLOBE

6,000+
EMPLOYEES WORLDWIDE

1 BRAND

100+
RESEARCHERS

70+
YEARS
of unrivalled protection & innovation

100%
INTEGRATED MANUFACTURING

PATENTS
58
OWNED

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CHEMREST CATALOGUE 2021 - GB - 101286000

ChemRest®
know you're protected

CHEMICAL RISKS DON'T STOP AT THE SURFACE, **YOUR PROTECTION SHOULDN'T EITHER.**

Reinforce your defence with the complete CHEMREST protection platform.

EDUCATE
Coherent tools & training on hand protection against chemicals

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

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

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Always Innovating. Never Imitating.

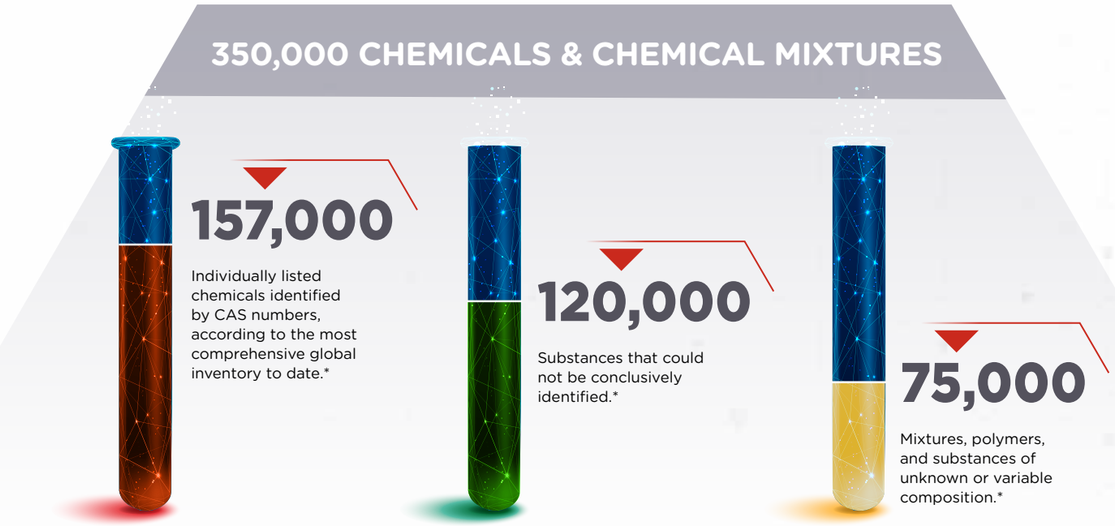
SHOWAgroup.com

THE DANGERS OF CHEMICALS AT WORK

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

While chemical injuries occur more frequently in occupations where chemicals are manufactured, they also happen in other high-risk industries such as mining, painting, construction, oil & gas, healthcare, warehousing, transportation, agriculture and welding.

Some chemical injuries happen when workers are (unintentionally) exposed to seemingly non-harmful solutions or gases over long periods of time.



* Individual chemicals, mixtures, polymers, and other substances were identified by CAS numbers.

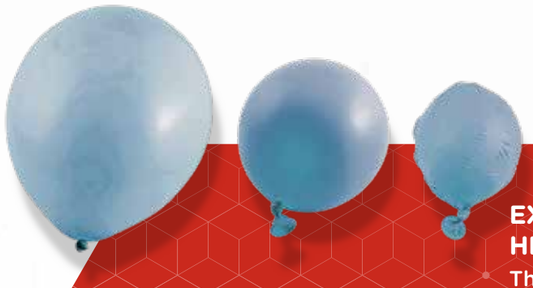
CHEMICAL PERMEATION: THE SILENT KILLER

Safety professionals choosing a chemical resistant glove must look at the glove's degradation AND permeation performance. Many PPE glove providers only offer the glove degradation data, but there is a distinct and critical difference between these two.

Signs of degradation by a chemical are clear; the glove material is being "attacked" by the chemical and will show changes in colour, form and flexibility. Burns or injuries will likely appear on the skin within several hours.

On the other hand, chemical permeation cannot be detected by the human eye. Unless the chemical is cleaned off properly, it will be absorbed into the glove material on a molecular level, emerging inside the glove as a vapour to enter the skin and bloodstream.

This can cause serious long term injuries that appear later on.



EXAMPLE: WHAT HAPPENS WHEN YOU LEAVE A HELIUM BALLOON IN A ROOM FOR A FEW DAYS?

The balloon will deflate and fall to the floor! This is due to PERMEATION - the chemical/gas molecules seeping through the material and escaping into the air.

COMPLICATIONS FROM CHEMICAL BURNS

EMPLOYEES AND EMPLOYERS BOTH PAY THE PRICE

Every year, millions are spent on medical fees, legal fees and fines due to hand protection failures that could have been avoided, not to mention the impact that days-away-from-work can have on production deadlines. Without the proper hand protection, the short- and long-term effects of chemical exposure can be extremely problematic and costly for both the worker and the employer.

In 2015, there were **3,940 cases** of days-away-from-work resulting from chemical burns or corrosions.

3 days away from work are taken after a chemical injury as a median period

Every year around **4%** of global GDP or **$2.8 trillion** is lost to work-related accidents and diseases.

A FULL CHEMICAL PROTECTION SERVICE WITH

SHOWA'S CHEMREST PLATFORM

Chemical risks don't stop at the surface, removing them requires the proper attention, up-to-date knowledge and the right protective measures. SHOWA combines unparalleled expertise in chemistry and chemical resistant materials with top of the line glove manufacturing processes, bringing you a complete and comprehensive chemical protection platform.

SHOWA ChemRest Platform

CHEMREST makes navigating the challenges of chemical resistant hand protection easier for safety professionals by providing an entire chemical resistance portfolio of products, resources and tools in one platform. Based on well over 70 years of product trials, market and customer research, and the joint experience of our 6000+ global employees, ChemRest offers 3 key service pillars that serve to reduce chemical-related injuries:

EDUCATION

We provide up to date knowledge, expertise, and tools on topics such as chemical resistance norms and chemical permeation data by glove, to help customers make the right glove choice and avoid injuries. This education also includes in-person or webinar training of your employees.

EVALUATION

Our glove experts assess our customers' specific needs and test their existing gloves against the chemical environments they may encounter. This benefit can also include using our in-house chemical laboratory services, where particular materials can be tested under controlled conditions to offer bespoke advice on hand protection and cost savings.

EQUIPMENT

Based on real, unbiased chemical performance data, we recommend the most suitable and performant glove for your application. Our ChemRest product series consists of chemical resistant gloves that can be used across all relevant markets, industries and applications. Each glove comes in a variety of sizes, lengths and thicknesses for additional personalization.

WHEN PROTECTING HANDS FROM CHEMICAL RISKS,

KNOWLEDGE IS DEFINITELY KEY

EDUCATE

SHOWA aims to empower customers with the knowledge and tools to make better and more informed choices about their chemical hand protection. You will find useful information in this document, but we remind you that our team of chemical glove experts are a phone call away and can offer more bespoke advice.

SHOWA EXPERTISE

CHEMICAL TERMS AND PROCESSES TO NOTE

BREAKTHROUGH TIME

The number of minutes from initial contact with a test chemical until it is first detected on the inside of the protective clothing measured using sensitive analytical testing. It is essentially the number of minutes until your skin is exposed inside the gloves or other protective clothing.

DEGRADATION

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

CONCENTRATION

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

HEAVY-EXPOSURE

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

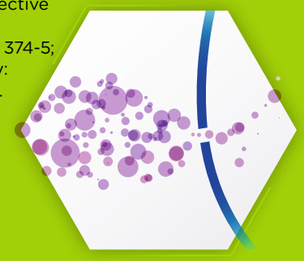
INTERMITTENT EXPOSURE

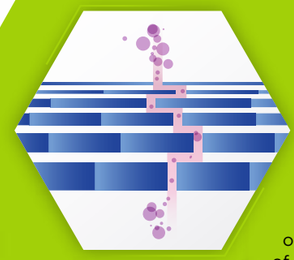
ASTM F 1383 Standard Test Method for Permeation of Liquids or Gases through Protective Clothing Materials under Conditions of Intermittent Contact. SHOWA used a contact time of 1 minute where the glove material was fully immersed, and 9 minutes of purge time where the glove material was unexposed to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

PENETRATION VS PERMEATION

PENETRATION

The process by which a substance moves through pinholes or other defects, forming apertures in protective gloves on a non-molecular level. Regulated in Europe by EN 455-1 / EN 374-5; for viruses by EN 16604. In America by: ASTM D5151; for viruses by: ASTM F1671.





PERMEATION

The process by which a chemical moves through protective glove materials at the molecular level. The passage of a liquid or gas through protective gloves consists of three steps; absorption, diffusion and desorption. Regulated in Europe by EN 374-1:2016 / EN 16523-1.

EDUCATE

RECOGNIZING NORMS AND LABELS THAT IDENTIFY YOUR LEVEL OF PROTECTION

A complete overview of PPE norms can be found on page 30.

EN ISO 374-1: 2016 | CHEMICAL RESISTANCE RATING

You can identify your glove's chemical protection performance by looking at the Type at the top of the pictogram and the letters underneath it. The Type will tell you how many of the 18 chemicals listed in the table were tested with the glove to check its performance and the expected minimal length of the protection against these chemicals. The Letter code denotes the tested chemicals within the EN 374 standard.

List of chemicals:

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

EN ISO 374-1/ Type A

UVWXYZ

Chemical protection with breakthrough times > 30 minutes for at least 6 of the 18 listed chemicals within the standard.

EN ISO 374-1/ Type B

XYZ

Chemical protection with breakthrough times > 30 minutes for at least 3 of the 18 listed chemicals within the standard.

EN ISO 374-1/ Type C

Chemical protection with breakthrough times > 10 minutes for at least 1 of the 18 listed chemicals within the standard.

EN ISO 374-5:2016

VIRUS

EN ISO 374-5: PROTECTION AGAINST MICRO-ORGANISMS

The world has seen its share of micro-organism hazards, with the safety concerns reaching the global pandemic level only too recently. The updated EN ISO 374-5 improves the identification of micro-organism-resistant gloves by labelling them with the specific micro-organisms they protect against: bacteria, fungi, and viruses. This way, users are immediately aware if their glove also protects them from, for example, coronaviruses.

EDUCATE

IDENTIFY YOUR HAND PROTECTION WITH OUR TYPE A, B OR C PRODUCT LABELS

You can also easily identify the glove you need thanks to SHOWA's new global labelling system that displays the EN ISO 374-1:2016 Type clearly on the glove as well as the packaging. That means when a worker reaches for a glove or dispenser, they don't need to squint at the fine print to see whether they have the correct level of protection.

EDUCATE

CHEMICAL-RESISTANT POLYMERS

Choosing the right chemical protective glove is a difficult task for health and safety managers. Choices are made following multiple criteria such as chemical, time of immersion, splash protection or heavy exposure, repetitiveness of tasks, etc.
The table below gives a general comparison of the chemical protection levels provided by polymers, against 6 of the most commonly found chemical types. Examples of their letter codes, taken from the 18 listed chemicals in EN ISO 374-1, are shown as well.

SHOWA's Chemical Laboratory can conduct more tests in case of uncertainty concerning the choice of protective glove with a given chemical.

	878 Butyl Rubber	731 Nitrile	3415 Neoprene	660 PVC	CHM Neoprene/Nitrile	890 Viton/Butyl
CHEMICAL						
Alcohol (A: Methanol)						
Ketone (B: Acetone)						
Aromatics (F: Toluene)						
Acid (L, M, N, S*)						
Fuel (Kerosene, Gas, Oil)						
Alkanes (J: Heptane)						

* L: Sulfuric, M: Nitric, N: Acetic, S: Hydrofluoric acid

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

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

EDUCATE

DEBUNKING THE MYTHS ABOUT

TYPE A, B OR C QUALIFICATIONS

There are several misconceptions about the labelling system. We recommend that customers choose their safety gloves according to its material, thickness, the chemicals and its dexterity and cost/durability, not according to its "rank" A, B, C.

POPULAR BELIEFS MET ON THE MARKET	OUR EXPERT ANSWER	WHAT SHOULD YOU DO?
"Two gloves with the same Type (A, B or C) but with different letters below the pictogram (e.g. JKL or JPT or KLO) do not offer the same protection."	**Not necessarily.** Each letter in the pictogram simply represents a specific chemical that the glove has been tested against. For instance, a glove with JKL below the pictogram means it was tested against 3 specific chemicals - in this case heptane(J), sodium hydroxide(K) and sulphuric acid(L). Another glove may have JPT below the pictogram, meaning it was tested against heptane(J) and two other chemicals. Glove manufacturers choose which chemicals they want their products tested against under the EN 374 standard, so gloves with the same Type could have been tested against many different chemicals.	Clearly understand the chemical hazards present in your application and utilize ChemRest.com to assist you in making a proper selection for the specific chemical(s) which could come in contact with the hands. Just because a chemical is not listed in the pictogram does not mean that the glove will not protect against it. If necessary, ask one of our experts for advice or a consultation.
"Two gloves with the same Type (A, B or C) but made of different materials provide equivalent protection."	**Not likely.** While some products made from different polymers that are labelled with the same EN 374 Type may exhibit similar protection levels, this does not make them equivalent. Each material has its strengths and weaknesses, which contributes to the overall performance. For instance, Nitrile is very well suited to protect against Alkanes, however tends to provide poor resistance to Ketones.	Clearly understand the chemical hazards present in your application and utilize ChemRest.com to assist you in making a proper selection for the specific chemical(s) which could come in contact with the hands. We also recommend to test the chosen gloves at the workplace and compare their cost of ownership and dexterity before making your final choice.
"Type A glove is better than a Type B glove, and Type B is better than Type C."	**Not likely.** A Type A glove is indeed tested against more chemicals than a Type B or Type C glove, but this does not indicate better performance. In the EN 374 standard, both Type A and Type B require the glove to withstand breakthrough by the chemical for at LEAST 30 minutes (it does not go beyond that). A Type A glove tested against heptane may only have a 35-minute breakthrough time while a Type B may have 85 minutes, meaning longer protection than the Type A glove, even though the same chemical letter appears in the pictogram of both gloves.	Clearly understand the chemical hazards present in your application and utilize ChemRest.com to assist you in making a proper selection for the specific chemical(s) which could come in contact with the hands. ChemRest.com will provide you with a much more specific breakthrough time for each chemical tested on all SHOWA ChemRest gloves. If necessary, ask one of our experts for advice or a consultation.
"A Type A glove with 7 or more letters below the pictogram obviously offers better protection than a Type A glove with only 6 letters."	**Not likely.** The EN 374 standard for TYPE A gloves is a minimum of 6 chemicals tested. A glove manufacturer can choose to test more than 6 if they wish. This does not mean that a glove with only 6 chemicals tested is of lower quality than a glove with 8 chemicals tested. It simply means the glove was subjected to more chemicals. A glove that has been tested to 8 chemicals may be very poor at protecting against a chemical that was not in the 8 chosen for the standard. Remember that each chemical is only tested for a minimum breakthrough time of 30 mins.	Knowing which chemical presents the hazards in your application is key. Just because a glove is tested against a lot of chemicals, does not necessarily mean it will adequately protect you from the chemical(s) in use at your application. Consult ChemRest.com to get the best possible hand protection solution for your needs, or speak to one of our experts to test the chosen gloves at your workplace.
"I won't choose a Type C glove because I was told by our safety officer that with the chemicals we use, we need a Type B glove."	**The EN 374 Types should not be utilized in this manner.** They exist as a guide for end users to more easily understand a glove's chemical protection properties for certain chemicals with exposure times within the Type that the glove falls into. They do not provide information on the glove's performance beyond 30 minutes of exposure, nor does it indicate performance against chemicals which were not tested. Simply choosing Type B over Type C because it is a level higher in the standard can lead to severe injuries. Type B gloves may be a poor choice against a particular chemical while a TYPE C glove may actually offer adequate protection against the same chemical.	Again, knowing the exact chemicals that you wish to protect your employees from is paramount. Obtain SDS sheets and use ChemRest.com to aid you in selecting a SHOWA glove that is appropriate for your level of exposure. Do not take chances, let the experts do the work for you. With dozens of chemists on staff, SHOWA and ChemRest.com can be your primary source for chemical hand protection selection. Ask one of our experts for advice or a consultation.

EVALUATE

KNOW YOU'RE PROTECTED WITH CHEMREST.COM

The EN ISO 374-1:2016 has undoubtedly improved the identification and labeling of chemical-resistant safety gloves, yet presents a challenge to safety professionals. Only 18 chemicals make up this norm, compared to the hundreds of different chemicals and chemical mixes used by our customers worldwide. So what if your chemical is not one of those 18?

ChemRest.com Chemical Resistant Glove Directory

SHOWA ChemRest

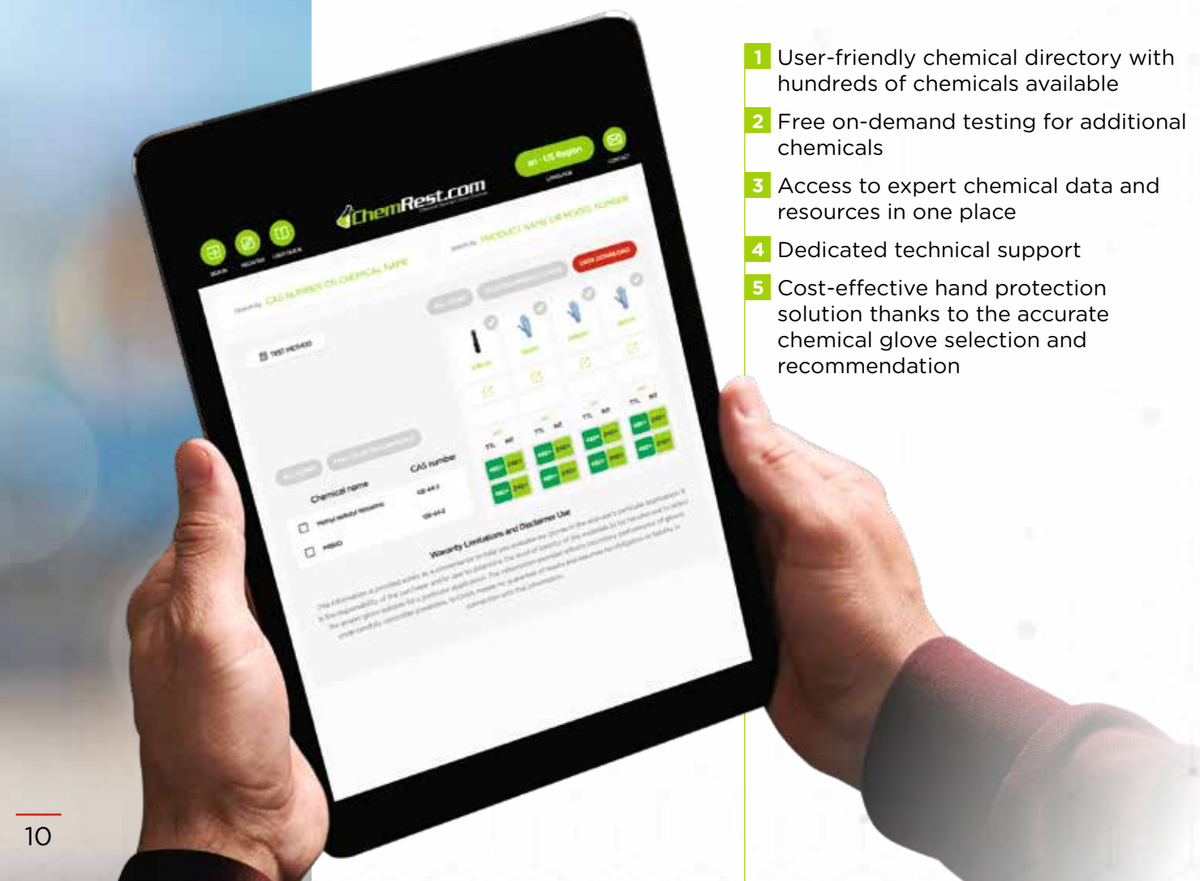
FIND THE RIGHT GLOVE ON CHEMREST.COM

Selecting the right chemical resistant glove for the job is a lot easier with ChemRest.com, the original and best-in-class Chemical Resistant Glove Directory.

Supported by our global network of manufacturing, research, and safety specialists, www.ChemRest.com allows safety professionals to conduct an initial search for a SHOWA glove that protects against a specific chemical or chemical mix.

With over 300 of the most popular commercially-used chemicals tested by our in-house chemists, ChemRest.com is the first step to evaluating your protection against the chemicals you use, for the time you use them.

ChemRest.com features user-intuitive navigation, an enhanced chemical search, and the ability to compare different gloves against each other. Safety professionals can benefit from:



1. User-friendly chemical directory with hundreds of 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 recommendation

HOW TO USE CHEMREST.COM

STEP 1

Visit ChemRest.com and select your location and language.

STEP 2

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

STEP 3

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

ChemRest.com Chemical Resistant Glove Directory

STEP 5

Register for your free account and download your chemical data.

STEP 4

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

SHOWA'S CHEMICAL LABORATORY SERVICES

As a premium service, SHOWA offers a free comprehensive analysis of your chemical-resistant glove usage, for example to help with the latest EN 374 compliance requirements. At our in-house chemical laboratory, we are able to test any chemical or chemical mix you may be using.

You receive a detailed report with glove recommendations based on your hazardous chemical usage. This program is designed to give the most cost-effective analysis and complete coverage of EN 374 requirements.

Find out more on SHOWAgroup.com

EVALUATE

IS YOUR CURRENT GLOVE SUITABLE FOR YOUR APPLICATION?

Safety concerns evolve as new procedures and technologies enter the workplace. Safety regulations are revised and updated as well, with harsher consequences for companies who do not comply. In parallel, advancements in protective gear mean that safety gloves are more comfortable, offer multi-risk protection, and be manufactured more cost-effectively thanks to innovations from glove makers like SHOWA.

SHOWA'S RISK EVALUATION PROGRAM IN 4 WEEKS

It's important to remember that chemical resistance tests are conducted in laboratory conditions, unlike the real workplace environments of our users. Other potential risks like abrasions, cuts and snags are present there, which impacts the protection needs of workers. Gloves that are worn down or have holes will not protect the user when submerged in chemicals. Furthermore, dexterity needs, contact time and budget play key roles in choosing protective gloves...

SHOWA offers a full risk evaluation designed to identify potential cost savings and hand safety improvements by:

- Consolidating products
- Reducing stock and capital bonding in PPE
- Adopting new technologies
- Improving employees' safety and job satisfaction
- Adopting best practices for use and control

A NOTE FROM OUR EXPERTS:

"So often, the purchasing process of chemical resistant gloves starts with the question: *"What is the alternative to the glove I am using now?"* When in fact, the glove currently being used is not suitable for the application (anymore). This scenario is the most dangerous way to purchase hand protection because not only are workers placed at risk, but so is the company."

HERE'S HOW IT WORKS:

Our holistic Evaluation Programs (4WTP or Sentinel Program) consists of a safety evaluation and strategic plan. Our 5-step methodology has been honed to effectively optimize your operation's safety and cost-performance within approximately 4 weeks.

1 EVALUATION:
SHOWA's highly-trained field experts conduct a comprehensive on-site hazard assessment to identify inefficiencies and turn them into opportunities.

2 BENCHMARK:
After determining your business goals and objectives, we benchmark your current performance and present alternative glove suggestions to be tested for improvements.

3 IMPLEMENTATION:
We design a customized safety plan and implement it through alternative glove trials with a selection of workers.

4 MEASUREMENT:
Once data is collected from the worker interviews and glove inspections, we present the comparisons on performance, user comfort and cost-efficency in a detailed report and price offer.

5 MANAGEMENT:
Following success on glove trials and acceptance of our customized safety plan, our service experts provide ongoing assistance to ensure you get the most from your investment long-term.

EQUIP

GLOBAL PRODUCT MANUFACTURING EXPERTISE IN A

UNIFIED CHEMREST PORTFOLIO

Utilizing the expertise of each of our manufacturing facilities across the world, SHOWA's ChemRest glove portfolio is a consolidated series of chemical resistant gloves adapted to all industries and uses. We have 100% ownership of our manufacturing processes and plants, building even our own production lines. Our gloves are designed and tested by our in-house engineers and chemists, trialled with customers in real working environments, and produced with SHOWA's "Zero defect" unmatchable quality.

		Type A	Type B	Type C
REUSABLE GLOVES	SUPPORTED	CS700 CS701	771	610 620
		CS710 CS711	772	640
		CS720 CS721	NSK26	460 465
		NSK24	650 660	
		3415 3416	KV660	
		6781R	690	
		660ESD	490 495	
	UNSUPPORTED	707D 707FL	708	160R
		707HVO	874	B0700R
		731	874R	B0710
		727 730 737 747	878	
		CHM	890	
SINGLE USE			6110PF	7570
			6112PF	7550
			7500PF	7502PF
			7580	7540
			7585	7545 7555
				C9905PF
		FULL IMMERSION	SPLASHES, INTERMITTENT CONTACT	

REUSABLE GLOVES

TYPE A TYPE B TYPE C

SHOWA

CS700

POLYMER: **NITRILE** LENGTH: **300/320MM** THICKNESS: **1.16MM** SIZE: **7/S – 11/XXL**

With anti-slip technology, the CS700 food-safe gloves offer ice-grip and increased tactility.

A double-dipped nitrile coating provides chemical protection and ensures the gloves are highly durable to keep the wearer safe from harmful substances.

The combination of a seamless liner and natural latex-free design is kind to the skin.

BENEFITS:
- Natural rubber latex-free
- Anti-slip grip
- Chemical-resistant
- Oil-resistant
- Seamless knit
- Robust durability

APPLICATIONS:
Food processing
Commercial fishing
Fish processing
Chemical
Petrochemical
Cold(ice) parts handling

FEATURES:
Double coated Nitrile
Polyester liner
Rough grip

EN 388 3132A | EN ISO 374-5 | EN ISO 374-1:2016/ Type A JKLMNOPT | EN 407 X1XXXX

SHOWA

CS701

POLYMER: **NITRILE** LENGTH: **350/370MM** THICKNESS: **1.16MM** SIZE: **7/S – 11/XXL**

The CS701 food-safe gloves are designed with precision in mind. Anti-slip, rough surface grip gives the wearer ice-grip and optimum performance.

A double-dipped nitrile coating also provides chemical protection and durability to ensure safety from dangerous substances.

The seamless liner and natural latex-free composition are skin-friendly and comfortable for long-wear.

BENEFITS:
- Natural rubber latex-free
- Anti-slip grip
- Chemical-resistant
- Oil-resistant
- Seamless knit
- Robust durability
- Forearm protection

APPLICATIONS:
Food processing
Commercial fishing
Fish processing
Chemical
Petrochemical
Cold(ice) parts handling

FEATURES:
Double coated Nitrile
Polyester liner
Rough grip

EN 388 3132A | EN ISO 374-5 | EN ISO 374-1:2016/ Type A JKLMNOPT | EN 407 X1XXXX

SHOWA

CS710

POLYMER: **NITRILE** LENGTH: **300/320MM** THICKNESS: **1.47MM** SIZE: **7/S – 11/XXL**

Prioritize comfort and wearer safety with the CS710 chemical-resistant gloves.

A double-dipped nitrile coating offers robust durability, whilst the seamless liner and natural latex-free composition ensure comfort during long periods of wear.

Enhanced grip from the foamed nitrile palm coating provides extra grip, even in oily or slippery environments.

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

APPLICATIONS:
Chemical
Construction
Petrochemical
Oil & Gas
Refining
Painting
Oily parts handling
Maritime

FEATURES:
Double coated Nitrile
Polyester liner
Foam grip
Microporous nitrile coating

EN 388 4122A | EN ISO 374-5 | EN ISO 374-1:2016/ Type A AJKLMNOPT | EN 407 X1XXXX

SHOWA

CS711

POLYMER: **NITRILE** LENGTH: **350/370MM** THICKNESS: **1.47MM** SIZE: **7/S – 11/XXL**

The CS711 chemical-resistant gloves offer enhanced grip, comfort, and safety. Forearm protection and nitrile material keep oil and dust from entering the glove.

A seamless liner and natural latex-free material ensures comfort and reduces irritation.

Even in oily or wet working environments, the foamed nitrile palm coating provides the user with tactile precision and protection.

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

APPLICATIONS:
Chemical
Construction
Petrochemical
Oil & Gas
Painting
Oily parts handling

FEATURES:
Double coated Nitrile
Polyester liner
Foam grip
Microporous nitrile coating

EN 388 4122A | EN ISO 374-5 | EN ISO 374-1:2016/ Type A AJKLMNOPT | EN 407 X1XXXX

SHOWA

CS720

POLYMER: **NITRILE** LENGTH: **300/320MM** THICKNESS: **1.23MM** SIZE: **7/S – 11/XXL**

A double-dipped nitrile coating on the SHOWA CS720 chemical-resistant gloves keeps wearers safe from harmful substances.

A rough finish nitrile palm coating enables good grip performance, whilst the liner wicks away moisture to prevent slipping and discomfort.

The durable CS720 gloves also prevent oil and dust from entering, ensuring optimum tactile precision.

BENEFITS:
- Seamless knit
- Increased dexterity
- Oil-resistant
- Chemical-resistant
- Forearm protection
- Natural rubber latex-free
- Anti-slip grip

APPLICATIONS:
Commercial fishing
Agriculture
Chemical
Petrochemical
Painting

FEATURES:
Rough grip
Double coated Nitrile
Polyester liner

EN 388 3132A | EN ISO 374-5 | EN ISO 374-1:2016/ Type A JKLMNOPT | EN 407 X1XXXX

SHOWA

CS721

POLYMER: **NITRILE** LENGTH: **350/370MM** THICKNESS: **1.23MM** SIZE: **7/S – 11/XXL**

The SHOWA CS721 chemical-resistant gloves keep wearers safe from harmful substances, with an elongated forearm for extra protection.

A rough finish nitrile palm coating offers enhanced grip, whilst the liner wicks away perspiration to prevent slipping and discomfort.

The durable CS721 also keeps oil and dust out of the glove, ensuring optimum tactile precision.

BENEFITS:
- Seamless knit
- Increased dexterity
- Oil-resistant
- Chemical-resistant
- Forearm protection
- Natural rubber latex-free
- Anti-slip grip
- Robust durability

APPLICATIONS:
Commercial fishing
Agriculture
Chemical
Petrochemical
Painting

FEATURES:
Double coated Nitrile
Polyester liner
Rough grip

EN 388 3132A | EN ISO 374-5 | EN ISO 374-1:2016/ Type A JKLMNOPT | EN 407 X1XXXX

SHOWA

707FL

POLYMER: **NITRILE** LENGTH: **355MM** THICKNESS: **0.28MM** SIZE: **6/XS – 11/XXL**

The 707FL chemical-resistant glove utilises the best of chemical-protective technology. This results in the ideal workwear for jobs requiring optimum comfort, tactility, and contact with chemical hazards.

A flocked cotton liner ensures easy donning and doffing. The rolled cuff prevents debris from entering, and the lightweight nitrile material reduces hand fatigue.

BENEFITS:
- Forearm protection
- Ergonomic shape
- Easy donning and doffing
- Chemical-resistant
- Oil-resistant
- Abrasion resistant
- Hydrocarbon-resistant
- Impermeable

FEATURES:
Flocked
Rolled cuff
Ergonomic
Fully coated Nitrile
Chlorinated
Embossed grip

APPLICATIONS:
Food handling
Chemical sampling
Laboratory and pharmaceutical
Cleaning

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

SHOWA
707D

POLYMER: **NITRILE** LENGTH: **305MM** THICKNESS: **0.23MM** SIZE: **6/XS – 11/XXL**

The 707D with second skin feel chemical-protection gloves combine the best of disposable and chemical-resistant technology. This hybrid results in the perfect solution for jobs requiring contact with chemical hazards, optimum comfort, and tactility.

A rolled cuff prevents debris from entering, and the lightweight nitrile material reduces hand fatigue.

BENEFITS:
Ergonomic shape
Easy donning and doffing
Chemical-resistant
Oil-resistant
Hydrocarbon-resistant
Impermeable

FEATURES:
Rolled cuff
Ergonomic
100% Nitrile
Chlorinated
Embossed grip
Unlined

APPLICATIONS:
Food handling
Chemical
Laboratory and pharmaceutical
Cleaning

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

SHOWA
727

POLYMER: **NITRILE** LENGTH: **330MM** THICKNESS: **0.38MM** SIZE: **7/S – 11/XXL**

An industry leader in chemical protection, the SHOWA 727 chemical-resistant gloves keep the wearer safe from a range of hazards.

Bisque surface texture gives the wearer enhanced grip, to make wet work safer and easier. The ergonomic design maximizes comfort to aid precision.

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

Features:
100% Nitrile
Unsupported
Unlined
Bisque finish
Ergonomic

APPLICATIONS:
Public sector
Solvent
Automotive
Chemical
Oil-based

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

SHOWA
730

POLYMER: **NITRILE** LENGTH: **330MM** THICKNESS: **0.38MM** SIZE: **6/XS – 11/XL**

Prioritizing grip and comfort, the SHOWA 730 chemical-resistant gloves are designed with performance in mind.

The 100% nitrile glove provides protection against a broad range of oils, solvents and chemicals. Bisque surface finish increases wet grip for enhanced ease and safety.

A flocked liner makes the SHOWA 730 easy to remove.

BENEFITS:
Forearm protection
Chemical-resistant
Oil-resistant
Impermeable

FEATURES:
Unsupported
100% Nitrile
Flocked
Textured finish
Ergonomic

APPLICATIONS:
Public sector
Solvent
Automotive
Chemical
Oil-based

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

SHOWA
737

POLYMER: **NITRILE** LENGTH: **380MM** THICKNESS: **0.56MM** SIZE: **9/L - 11/XXL**

The SHOWA 737 chemical-resistant glove features an extended gauntlet (380mm) to protect the hand and forearm from a broad range of hazards.

Designed with performance in mind, the 737 glove uses 100% nitrile to create an impermeable barrier.

Bisque surface grip makes wet work easier and safer.

BENEFITS:
Forearm protection
Chemical-resistant
Oil-resistant
Impermeable

FEATURES:
Unsupported
Unlined
100% Nitrile
Ergonomic
Textured finish

APPLICATIONS:
Public sector
Solvent
Automotive
Chemical
Oil-based

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

SHOWA
747

POLYMER: **NITRILE** LENGTH: **480MM** THICKNESS: **0.56MM** SIZE: **9/L – 11/XXL**

The SHOWA 747 chemical-resistant glove features a 480mm gauntlet to provide extended protection from a broad range of hazards.

Designed with performance in mind, the 747 glove uses 100% Nitrile to create an impermeable barrier.

Bisque surface grip makes wet work easier and safer.

BENEFITS:
Forearm protection
Chemical-resistant
Oil-resistant
Impermeable

FEATURES:
Unsupported
100% Nitrile
Textured finish
Ergonomic

APPLICATIONS:
Public sector
Solvent
Automotive
Chemical
Oil-based

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

SHOWA
NSK24

POLYMER: **EBT NITRILE** LENGTH: **350/360MM** THICKNESS: **1.14MM** SIZE: **7/S – 11/XXL**

Providing excellent protection from a wide array of solvents, oils and acids, this chemical-protection glove is flexible and watertight.

The NSK24 cotton-lined nitrile glove is engineered with SHOWA's biodegradable Eco Best Technology (EBT).

A double nitrile coating provides excellent chemical, oil and abrasion resistance to the hand and arm, and the cotton liner wicks away sweat.

BENEFITS:
Acid-resistant
Oil-resistant
Hydrocarbon-resistant
Forearm protection
Natural latex-free
Water-resistant
Biodegradable

FEATURES:
Cotton liner
Eco Best Technology® (EBT)
100% Nitrile
Rough grip

APPLICATIONS:
Food
Chemical
Oil-based
Commercial fishing
Agriculture
Petrochemical

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

SHOWA
707HVO

POLYMER: **EBT NITRILE** LENGTH: **305MM** THICKNESS: **0.23MM** SIZE: **6/XS – 11/XXL**

The 707HVO biodegradable gloves are a more environmentally-conscious choice, breaking down by 82% in just 386 days when tested in a laboratory.

This eco-friendly alternative to single-use gloves doesn't mean compromising on functionality. The 707HVO are highly tactile and fit like a second skin, all whilst protecting against grease, chemicals, and abrasion.

With complete EU Standard, FDA, and Food Contact Compliance, these gloves are ideal for use when working in laboratories or food preparation zones.

BENEFITS:
Biodegradable
Abrasion-resistant
Oil-resistant
Hydrocarbon-resistant
Increased visibility
Water-resistant
Chemical-resistant
Easy donning and doffing

FEATURES:
Fluorescent
Lightweight
Rolled Cuff
Chlorinated
Eco Best Technology® (EBT)
Unlined
Unsupported

APPLICATIONS:
Chemical
Food
Janitorial
Laboratory
Municipal Services
Pharmaceutical

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

SHOWA
731

POLYMER: **EBT NITRILE** LENGTH: **350/360MM** THICKNESS: **0.38MM** SIZE: **7/S – 11/XXL**

Chemical-resistant gloves, like the SHOWA 731, are ideal for working with harmful substances such as acids and solvents.

These gloves are also water-resistant with bisque grip, to allow for tactile precision even when operating in wet environments.

Thanks to SHOWA's Eco Best Technology® the 731 gloves are biodegradable, despite being extremely strong and acid-resistant.

BENEFITS:
Chemical-resistant
Extra grip
Increased dexterity
Biodegradable
Water-resistant
Flexible
Acid-resistant
Reusable

FEATURES:
Eco Best Technology®
100% Nitrile
Unsupported
Flocked
Created with premium-grade compound
Strong chemical resistance

APPLICATIONS:
Petrochemical
Manufacturing
Refinery operations
Agriculture
Janitorial
Automotive

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

SHOWA

CHM

POLYMER: **NEOPRENE** LENGTH: **305MM** THICKNESS: **0.66MM** SIZE: **7/S – 10/XL**

This chemical protection glove is flexible, comfortable, and resistant to a broad range of chemicals.

Engineered with a neoprene-over-natural rubber construction with embossed grip, the SHOWA CHM provides maximum precision, sensitivity, and defense.

The cotton flocked liner helps to maintain a comfortable temperature within the glove.

BENEFITS:
Flexible
Increased sensitivity
Chemical-resistant

FEATURES:
Neoprene over natural rubber
Cotton flocked
Embossed grip
Unsupported

APPLICATIONS:
Petrochemical
Chemical industry
Janitorial
Automotive

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

SHOWA

3415

POLYMER: **NEOPRENE** LENGTH: **300/320MM** THICKNESS: **1.16MM** SIZE: **7/S – 11/XXL**

Protect your hands from harmful substances with SHOWA's 3415 chemical-resistant gloves.

As well as creating a strong barrier against grease, acids and solvents, the 3415 has a rough surface coating to provide increased grip when working in wet or oily environments.

The seamless lining and flexible material ensure comfort and reduced irritation during long periods of wear.

BENEFITS:
Extra Grip
Flexible
Oil-resistant
Chemical-resistant
Increased dexterity
Skin-friendly
Seamless knit
Acid-resistant

Features:
Rough grip
Fully-coated neoprene
Strong chemical resistance

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

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

SHOWA

3416

POLYMER: **NEOPRENE** LENGTH: **355MM** THICKNESS: **2.49MM** SIZE: **8/S – 11/XL**

The 3416 highly cut-resistant gloves are approved to standard EN 388 cut level E.

As well as preventing injury, these gloves feature a seamless knit to prevent skin irritation over long periods of wear, and a rough outer surface for increased grip and tactile precision.

These gloves are also resistant to acids, chemicals, solvents, and oils, to keep hands safe from harmful substances.

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

FEATURES:
Rough grip
Fully-coated neoprene
Strong chemical resistance
Cut-resistance

APPLICATIONS:
Metallurgy
Chemical bases, acids
Petrochemical
Recycling

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

SHOWA

6781R

POLYMER: **NEOPRENE** LENGTH: **305MM** THICKNESS: **13MM** SIZE: **10/L**

The SHOWA 6781R chemical-resistant gloves are constructed using triple-layered foam insulation and a strong neoprene coating.

Protect hands from the cold and stay safe when working with temperatures up to 350°C.

The rough surface grip and durable material offer resistance from chemicals, cuts, and abrasion.

BENEFITS:
Burn protection
Extra grip
Abrasion-resistant
Chemical-resistant
Cut-resistant
Heat-resistant

FEATURES:
Fully-coated neoprene
Rough grip
Cotton liner
Insulated

APPLICATIONS:
Chemical
Petrochemical
Automotive
Metallurgy

Cat. III 2777 | EN 388:2016 3121X | EN 374-5:2016 | EN 374-1:2016/Type A AJKLMT | EN 407 3332XX | EN 511 11X

SHOWA

660ESD

POLYMER: **PVC** LENGTH: **300/320MM** THICKNESS: **1.30MM** SIZE: **9/L – 10/XL**

The SHOWA 660ESD anti-static safety gloves are designed for handling flammable or explosive materials.

Both the liner and coating aid in preventing sparks from friction for safe use in extreme environments.

When used for extended periods, the lining absorbs perspiration to prolong comfort and grip.

BENEFITS:
Oil-resistant
Extra grip
Abrasion-resistant
Ergonomic shape
Soft liner
Anti-static
Chemical-resistant

FEATURES:
Rough grip
Ergonomic
Full PVC Coating
Anti-static liner
Cotton liner

APPLICATIONS:
Petrochemical
Automotive
Refining
Oil & Gas

Cat. III 0598 | EN 388:2016 4121X | EN 374-5:2016 | EN 374-1:2016/Type A AJKLMO

SHOWA

771

POLYMER: **NITRILE** LENGTH: **355MM** THICKNESS: **0.28MM** SIZE: **6/XS – 11/XXL**

SHOWA's 771 chemical protection gloves feature a full nitrile coating with additional rough finished nitrile over the entire hand.

Designed to protect the hand and forearm against oil, hydrocarbons, grease and abrasion, the 771 is a durable glove.

For wearer comfort, a soft liner wicks away sweat and the flexible construction provides great dexterity and ease of movement during continuous wear.

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

FEATURES:
Scalloped edge
Full nitrile coating, extra coating over entire hand
Rough grip
Antibacterial
Anti-odour
Cotton liner
Ergonomic

APPLICATIONS:
Chemical handling
Oil-based applications
Petrochemical
Alkaline component

Cat. III 0598 | EN 388:2016 4111X | EN 374-5:2016 | EN 374-1:2016/Type B JKL

SHOWA

772

POLYMER: **NITRILE** LENGTH: **650MM** THICKNESS: **0.50MM** SIZE: **8/M – 10/XL**

The highly durable SHOWA 772 glove offers extended hazard protection for the entire arm. A fully-coated, impermeable nitrile sleeve and extra nitrile palm coating protect against oils, abrasion, and chemicals.

An elasticated border keeps the 772 in place, and its antibacterial and anti-odor properties are ideal for extended wear.

Rough surface grip and flexibility combine to ensure optimum dexterity and precision.

BENEFITS:
Hydrocarbon-resistant
Impermeable
Full-arm protection
Chemical-resistant
Oil-resistant
Abrasion-resistant
Increased tactility
Flexible

FEATURES:
Ergonomic
Fully-coated Nitrile
Rough grip
Double coated nitrile on hand
Antibacterial
Anti-odor

APPLICATIONS:
Chemical handling
Oil-based applications
Petrochemical
Alkaline components

Cat. III 0598 | EN 388:2016 4111X | EN 374-5:2016 | EN 374-1:2016/Type B JKL

SHOWA

NSK 26

POLYMER: **NITRILE** LENGTH: **620/650MM** THICKNESS: **0.80MM** SIZE: **8S – 11/XL**

Providing excellent protection from a wide array of solvents, oils and acids, this chemical-protection glove is flexible and watertight.

The rough surface finish ensures excellent grip, and the cotton liner wicks away sweat for wearer comfort.

An eyelet and elasticated cuff keeps the glove in place to ensure full and consistent protection from an array of hazards.

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

FEATURES:
100% Nitrile
Cotton liner
Rough grip

APPLICATIONS:
Chemical handling
Fishing & agriculture
Food processing
Sanitation & dishwashing
Oil & gas

Cat. III 0598 | EN 388:2016 4112X | EN 374-5:2016 | EN 374-1:2016/Type B JKL

SHOWA

708

POLYMER: **NITRILE** LENGTH: **300MM** THICKNESS: **0.23MM** SIZE: **7/S – 12/XXXL**

The 708 ambidextrous gloves utilize unflocked material to prevent the risk of food contamination. However, this doesn't mean compromising on grip and dexterity.

By using fish scale grip inside and outside the glove, the 708 provides superior control when working with liquids and during long periods of use.

Additionally, the chemical-resistant compound makes these gloves suitable for use in laboratories and preventing exposure to harmful chemicals.

BENEFITS:
Natural latex-free
Flexible
Increased dexterity
Extra grip
Strong
Chemical-resistant
Disposable

FEATURES:
Beaded cuff
Strong chemical resistance
Unflocked
Ambidextrous
Fish scale grip inside and out
Powder-free

APPLICATIONS:
Agriculture
Bakeries & delicatessens
Dairy production
Drinks production & handling
Food packing & handling
Food processing
HoReCa
Janitorial/Cleaning
Assembling oil-coated pieces
Sanitation & dishwashing

Cat. III 2777 · EN 374-5:2016 virus · EN 374-1:2016/Type B JKOPT

SHOWA

650

POLYMER: **PVC** LENGTH: **250/270MM** THICKNESS: **1.30MM** SIZE: **8/M – 11/XL**

The 650 chemical resistant glove offers anti-odour and antibacterial protection as well as a moisture-wicking soft cotton liner.

A full PVC coating and extra rough-finish PVC over the entire hand protects against chemicals, grease and liquid.

Using SHOWA's anatomical hand shape, the 650 reduces hand fatigue. A seamless knit prevents irritation during long periods of wear.

BENEFITS:
Seamless knit
Soft liner
Impermeable
Abrasion-resistant
Flexible
Chemical-resistant
Robust grip

Features:
Rough grip
Antibacterial
Anti-odour
Cotton liner
Ergonomic
Full PVC coating, extra coating over entire hand
Scalloped edge

APPLICATIONS:
Public sector
Solvent
Automotive
Chemical
Oil-based Chemical industry
Construction
Fishing & agriculture
Metallurgy
Painting
Petrochemical
Public works

Cat. III 0598 · EN 388:2016 4121X · EN 374-5:2016 · EN 374-1:2016/Type B JKL

SHOWA

660

POLYMER: **PVC** LENGTH: **300/360MM** THICKNESS: **1.30MM** SIZE: **8/M – 11/XXL**

Constructed with a rough-finish triple-dipped PVC coating, this chemical protection glove prioritizes wearer safety and comfort.

A seamless, soft cotton liner wicks away moisture to prevents odors, and the ergonomic design reduces hand fatigue.

The rough grip offers high-performance precision in greasy or damp environments.

BENEFITS:
Seamless knit
Forearm protection
Chemical-resistant
Increased tactility
Robust grip
Water-resistant
Durable

FEATURES:
Triple-dipped PVC coating
Rough grip
Ergonomic
Anti-odor

APPLICATIONS:
Chemical industry
Construction
Fishing & agriculture
Metallurgy
Painting
Petrochemical
Public works

Cat. III 0598 · EN 388:2016 4121X · EN 374-5:2016 · EN 374-1:2016/Type B JKL

SHOWA

KV660

POLYMER: **PVC** LENGTH: **300/320MM** THICKNESS: **1.30MM** SIZE: **8/M - 11/XXL**

Providing defense against a broad range of hazards these cut and chemical-resistant gloves are forged with triple-dipped PVC and a reinforced Kevlar® liner.

The SHOWA KV660 provides first-class defense against oils, chemicals, abrasion, and cuts. The rough surface finish offers a good grip and increased durability.

Even after multiple washes, the KV660 maintains its barrier to hazards.

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

FEATURES:
Liner made with Kevlar®
Triple-dipped PVC coating
Rough grip

APPLICATIONS:
Bottling
Chemical industry
Commercial fishing
Glass
Oil & Gas
Utilities
Painting
Plumbing

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

SHOWA

690

POLYMER: **PVC** LENGTH: **660MM** THICKNESS: **1.30MM** SIZE: **8/M – 11/XXL**

The 690 chemical protection glove keeps the entire hand and arm away from harmful chemicals. Extended bonded sleeves are secured with an elasticated cuff.

Its soft cotton liner is breathable, controls temperature, and absorbs perspiration for extended comfort throughout the day.

Flexible materials and a rough surface grip offer optimum tactility, and an impermeable surface allows maximum control in greasy and wet environments.

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

FEATURES:
Rough grip
Cotton liner
Extended bonded sleeve
Elasticated border
Full PVC Coating

APPLICATIONS:
Chemical industry
Construction
Fishing & agriculture
Metallurgy
Painting
Petrochemical
Public works

Cat. III 0598 · EN 388:2016 4121X · EN 374-5:2016 · EN 374-1:2016/Type B JKL

SHOWA

490

POLYMER: **PVC** LENGTH: **300MM** THICKNESS: **1.50MM** SIZE: **8/M – 10/XXL**

Our SHOWA 490 cold-resistant glove provides protection and maintains its flexibility even at low temperatures of -20°C.

Its triple-dipped PVC coating and extended forearm protect from liquids, including oil, grease, and chemicals.

The rough surface grip allows tactile precision and its ergonomic, ergonomic shape reduces hand fatigue over long periods of wear.

BENEFITS:
Chemical-resistant
Oil-resistant
Protects up to -20°C
Flexible
Thermal insulation
Ergonomic shape
Extra grip

FEATURES:
Ergonomic
Rough grip
Full PVC Coating
Forearm protection
Insulated

APPLICATIONS:
Airports & Ports
Chemical industry
Fishing & agriculture
Mechanical
Oil & Gas
Utilities

Cat. III 0598 · EN 388:2016 4221X · EN 374-5:2016 · EN 374-1:2016/Type B JKL · EN 511 121

SHOWA

495

POLYMER: **PVC** LENGTH: **300MM** THICKNESS: **1.50MM** SIZE: **8/M – 10/XL**

The 495 cold weather gloves are crafted with a removable seamless liner that absorbs perspiration to keep hands comfortable and avoid loss of grip within the glove.

Protecting down to temperatures of -20°C, they are ideal for working in extreme weather.

Added rough grip ensures tactile precision when handling wet or oily components, and extended forearm protection provides optimum chemical resistance.

BENEFITS:
Seamless knit
Chemical-resistant
Flexible
Protects up to -20°C
Thermal insulation
Oil-resistant
Ergonomic shape

FEATURES:
Forearm protection
Full PVC Coating
Insulated
Ergonomic
Rough grip
Removable liner

APPLICATIONS:
Airports & Ports
Chemicals
Fishing & agriculture
Mechanical
Oil & Gas
Utilities

Cat. III 0598 · EN 388:2016 4221X · EN 374-5:2016 · EN 374-1:2016/Type B JKL · EN 511 121

SHOWA

890

POLYMER: **VITON OVER BUTYL** LENGTH: **350MM** THICKNESS: **0.70MM** SIZE: **9/L - 10/XL**

Forged with fluoroelastomer rubber, the extra-thick SHOWA 890 chemical and acid resistant glove provides superior resistance to highly corrosive acids.

The butyl rubber coating is designed for handling aliphatic and aromatic hydrocarbons, such as Benzene, Toulene, and Xylene.

Smooth surface grip allows for increased sensitivity and tactility when handling small components.

BENEFITS:
Acid-resistant
Hydrocarbon-resistant
Impermeable
Forearm protection

FEATURES:
Unlined Viton®
Butyl rubber
Smooth grip
Unsupported

APPLICATIONS:
Chemicals
Pharmaceuticals
Petrochemicals
Railways

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

SHOWA

874

POLYMER: **BUTYL** LENGTH: **350MM** THICKNESS: **0.35MM** SIZE: **7/S – 11/XXL**

The SHOWA 874 chemical resistant glove offers superior protection against highly corrosive acids, ketones, and esters.

Butyl rubber provides the highest permeation resistance to gases and water vapors of any material used to make gloves.

A smooth surface grip provides unmatched tactility and performance.

BENEFITS:
Acid-resistant
Impermeable
Water-resistant

FEATURES:
Unlined
Rolled cuff
Smooth grip
Unsupported
Butyl rubber

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

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

SHOWA

874R

POLYMER: **BUTYL** LENGTH: **350MM** THICKNESS: **0.35MM** SIZE: **7/S – 11/XXL**

The SHOWA 874R chemical resistant glove offers superior protection against highly corrosive acids, ketones, and esters.

Butyl rubber provides the highest permeation resistance to gases and water vapors of any material used to make gloves.

A rough surface grip ensures optimum precision and increased durability.

BENEFITS:
Acid-resistant
Impermeable
Water-resistant

Features:
Unlined
Rolled cuff
Smooth grip
Unsupported
Butyl rubber

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

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

SHOWA

878

POLYMER: **BUTYL** LENGTH: **350MM** THICKNESS: **0.70MM** SIZE: **8/M – 11/XXL**

The extra-thick SHOWA 878 chemical and acid resistant glove offers superior protection against highly corrosive acids, ketones, and esters.

Butyl rubber provides the highest permeation resistance to gases and water vapors of any material used to make gloves.

Smooth surface grip provides unmatched tactility and performance.

BENEFITS:
Acid-resistant
Impermeable
Water-resistant

FEATURES:
Unlined
Rolled cuff
Smooth grip
Unsupported
Butyl rubber

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

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

SHOWA

610

POLYMER: **PVC** LENGTH: **250/270MM** THICKNESS: **1.10MM** SIZE: **8/M – 11/XXL**

Fully coated PVC and an extra PVC coating over the entire hand seals ensure this chemical protection glove protects the hand and wrist against chemical hazards.

The impermeable coating is ideal for working in damp or greasy environments and added rough surface texture helps with gripping objects securely.

A soft cotton liner wicks away moisture, and the seamless liner reduces irritation over long periods of wear.

BENEFITS:
Seamless knit
Flexible
Chemical-resistant
Impermeable
Increased dexterity
Durable
Robust grip
Forearm protection

FEATURES:
Scalloped edge
Cotton liner
Full PVC coating, extra coating over entire hand
Ergonomic
Rough finish

APPLICATIONS:
Maritime sector
Painting
Construction
Chemical industry

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

SHOWA

620

POLYMER: **PVC** LENGTH: **300MM** THICKNESS: **1.10MM** SIZE: **8/M – 11/XXL**

Protect hands from harmful substances with the 620 chemical-resistant gloves.

A soft cotton liner and flexible fabric ensures optimum comfort, whilst the PVC coating protects against chemicals, acids, bases, and solvents.

The 620 gloves are also liquid proof and abrasion resistant.

BENEFITS:
Acid-resistant
Seamless knit
Abrasion-resistant
Extra grip
Water-resistant
Chemical-resistant
Strong
Flexible
Soft liner

FEATURES:
Rough grip
Full PVC Coating
Cotton liner

APPLICATIONS:
Maritime sector
Painting
Construction
Chemical industry

Cat. III 0598 | EN 388:2016 3121X | EN 374-5:2016 | EN 374-1:2016/Type C KL

SHOWA

640

POLYMER: **PVC** LENGTH: **600MM** THICKNESS: **1.10MM** SIZE: **8/M – 10/XL**

These chemical resistant gloves offer full hand and arm protection against acids, chemicals, bases, solvents and liquids.

A soft cotton liner and flexible material ensure comfort and flexibility.

The double-dipped PVC coating on the SHOWA 640 adds extra grip, increases the glove's abrasion resistance, and enhances durability.

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

FEATURES:
Rough grip
Full PVC Coating
Soft liner
Liquid-resistant vinyl sleeve

APPLICATIONS:
Maritime sector
Painting
Construction
Chemical industry

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

SHOWA

460

POLYMER: **PVC** LENGTH: **300MM** THICKNESS: **1.10MM** SIZE: **8/M – 10/XL**

Built to stay flexible in temperatures as low as -20°C, the 460 cold-resistant glove provides superior warmth in cold weather.

Its PVC coating protects against oils and chemicals, and the rough grip allows tactile precision when handling small greasy components.

The 460 also offers superior wrist protection from harmful substances, and reduces potential exposure to bacteria, viruses, and fungi.

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

FEATURES:
Full PVC coating
Rough grip
Forearm protection

APPLICATIONS:
Airports & Ports
Commercial fishing
Oil & Gas
Warehouse & Distribution

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

SHOWA

465

POLYMER: **PVC** LENGTH: **300MM** THICKNESS: **1.10MM** SIZE: **8M – 10/XL**

Featuring a removable cotton/acrylic liner and a full PVC coating, the SHOWA 465 thermal insulation glove protects against chemicals even in cold environments.

Protecting up to -20°C, this cold protection glove remains flexible in extreme temperatures. Its rough surface provides increased tactility and grip.

The outer layer is impermeable for working in greasy or damp environments, and the inner layer is moisture-wicking and machine washable for added hygiene.

BENEFITS:
Flexible
Soft liner
Durable
Chemical-resistant
Cold protection
Impermeable
Forearm protection
Seamless knit

FEATURES:
Rough grip
Ergonomic
Removable liner
Full PVC coating
Insulated

APPLICATIONS:
Airports & Ports
Commercial fishing
Oil & Gas
Warehouse & Distribution

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

EQUIP

TYPE A TYPE B TYPE C

SHOWA
160R

POLYMER: **PVC** LENGTH: **300MM** THICKNESS: **0.30MM** SIZE: **8/M – 10/XL**

This lightweight, chemical protection glove is designed for comfort and flexibility during long periods of wear. A full PVC coating seals and protects hands and forearms against chemicals.

An embossed texture on the impermeable PVC enables secure grip in wet or greasy environments.

Designed to feel like a second-skin, this ergonomic glove prioritises wearer comfort to reduce hand fatigue.

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

Features:
Unlined
Unsupported
Ergonomic
Powder-free
Full PVC Coating
Embossed grip
Scalloped edge

APPLICATIONS:
Petrochemical
Janitorial
Chemical industry
Pharmaceutical & laboratory

Cat. III 0598 · EN 388:2016 2000X · EN 374-5:2016 · EN 374-1:2016/Type C KL

SHOWA
B0700R

POLYMER: **PVC** LENGTH: **300MM** THICKNESS: **0.30MM** SIZE: **7/S – 10/XL**

Ideal for clean applications, the SHOWA B0700R white glove is an excellent alternative to natural rubber gloves.

The second-skin feel is soft and comfortable, and the slip-on treatment makes the gloves easy to put on and remove.

Made with PVC, the B0700R provides chemical and liquid resistance. The embossed surface ensures excellent gripping action.

BENEFITS:
Ergonomic shape
Easy donning and doffing
Natural rubber latex-free
Chemical-resistant
Water-resistant

FEATURES:
Unsupported
Embossed grip
Full PVC Coating

APPLICATIONS:
Pharmaceutical
Healthcare
Electronics

Cat. III 0598 · EN 388:2016 2000X · EN 374-5:2016 · EN 374-1:2016/Type C KL

SHOWA
B0710

POLYMER: **PVC** LENGTH: **600MM** THICKNESS: **0.30MM** SIZE: **7/S - 10/XL**

For extended protection for the entire arm, the B0710 chemical protection glove features an extended bonded sleeve and elasticated border to keep it in place.

The unsupported PVC coating protects the hand against chemicals and is impermeable against grease and moisture.

Rough surface grip enables precision when handling slippery components.

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

FEATURES:
Unsupported
Full PVC coating
Ergonomic
Powder-free

APPLICATIONS:
Pharmaceutical
Healthcare
Electronics

Cat. III 2777 · EN 388:2016 2000X · EN 374-5:2016 · EN 374-1:2016/Type C JK

PROTECTION AND PRESERVATION IN ONE

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

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

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

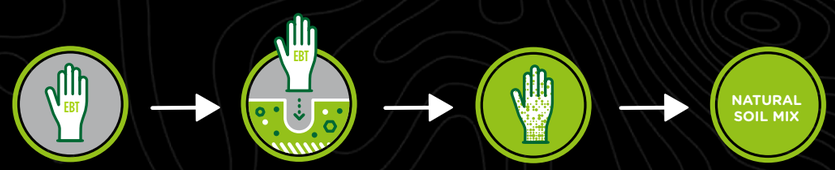
*as proven with ASTM D5511 & D5526 test results

REGULAR NITRILE · SHOWA EBT
SAME PERFORMANCE & 100% QUALITY CONTROL

TESTED ASTM D5526 ASTM D5511

REDUCED ENVIRONMENTAL IMPACT

HOW DOES EBT WORK?



SHOWA EBT® Materials → **Glove Disposal** → **Decomposition by Microorganisms** → **Natural Output**

SHOWA'S DISCLAIMER

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

SINGLE USE GLOVES

SHOWA

6110PF

POLYMER: **EBT NITRILE** LENGTH: **240MM** THICKNESS: **0.10MM** SIZE: **6/S – 11/XXL**

The versatile, 6110PF biodegradable single-use gloves are highly dexterous and waterproof, whilst upholding extreme comfort during long periods of use.

Approved for food handling and contact, these gloves are ideal for food preparation, use in laboratories, and general repair or maintenance work.

By using SHOWA's Eco Best Technology®, the 6110PF's are eco-friendly, breaking down by 82% in just 386 days when tested in a laboratory.

BENEFITS:
Biodegradable
Ergonomic shape
Disposable
Smooth grip
Latex-free
Water-resistant

FEATURES:
Eco Best Technology® (EBT)
Ergonomic
Lightweight
Unsupported
Powder-free

APPLICATIONS:
Law enforcement & security
Automotive
Plumbing
Food
Healthcare
Municipal services
Pharmaceutical
Public utilitiesPublic utilities

Cat. III CE 2777 · EN 374-5:2016 VIRUS · EN 374-1: 2016/Type B JK

SHOWA

6112PF

POLYMER: **EBT NITRILE** LENGTH: **240MM** THICKNESS: **0.10MM** SIZE: **6/XS - 11XXL**

The versatile, 6112PF biodegradable single-use glove priotizes sensitivity and dexterity. The 0.10mm thick nitrile is also waterproof and provides extreme comfort during long periods of use.

Approved for food handling and contact, these gloves are ideal for food preparation, use in laboratories, and general repair or maintenance work.

By using SHOWA's Eco Best Technology®, the 6112PF's are eco-friendly, breaking down by 82% in just 386 days when tested in a laboratory.

BENEFITS:
Biodegradable
Ergonomic shape
Disposable
Smooth grip
Latex-free
Water-resistant

FEATURES:
Eco Best Technology® (EBT)
Ergonomic
Lightweight
Unsupported
Powder-free

APPLICATIONS:
Aerospace
Automotive
Electronics
Food
Laboratory & healthcare
Quality control
Warehousing & distribution

Cat. III CE 2777 · EN 374-5: 2016 VIRUS · EN 374-1: 2016/Type B KPT

SHOWA

7500PF

POLYMER: **EBT NITRILE** LENGTH: **240MM** THICKNESS: **0.10MM** SIZE: **6/XS - 11XXL**

Engineered with SHOWA's revolutionary Eco Best Technology® (EBT), the SHOWA 7500PF disposable glove is biodegradable, achieving 82% biodegradation in 386 days in a laboratory.

A rolled cuff prevents dirt from entering, and the powder and latex-free design reduces risk of discomfort and allergies.

Textured surface grip makes wet work safer and easier.

BENEFITS:
Disposable
Biodegradable
Flexible
Latex-free
Increased dexterity

FEATURES:
Powder-free
Rolled cuff
100% Nitrile
Ergonomic
Eco Best Technology®
Textured finish

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

TYPE A TYPE B TYPE C

SHOWA

7580

POLYMER: **NITRILE** LENGTH: **240MM** THICKNESS: **0.20MM** SIZE: **7/S – 11/XXL**

This thicker, 0.20mm 100% nitrile disposable glove offers durable, high-performance protection against chemical penetration and splashing.

For added comfort, the glove is twice chlorinated to reduce tackiness and create a soft, second-skin feel. Its latex, silicone and powder-free composition reduce risk of allergies and irritation.

A textured finish on the fingertips enhances grip when handling small components.

BENEFITS:
Disposable
Latex-free
Chemical-resistant
Water-resistant
Increased sensitivity
Durable

FEATURES:
100% Nitrile
Silicone-free
Chlorinated
Powder-free
Textured finish

APPLICATIONS:
Aerospace
Automotive
Chemicals
Cytotistics
Electronics
Food
Laboratory & healthcare
Painting
Pharmaceuticals & API
Printing
Quality control

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

SHOWA

7585

POLYMER: **NITRILE** LENGTH: **300/320MM** THICKNESS: **0.20MM** SIZE: **7/S – 11/XXL**

This cobalt blue 0.20mm thick 100% nitrile disposable glove is designed to reduce irritation and allergy risks, as well as providing enhanced chemical protection to the hands and forearms.

By chlorinating the glove, comfort is enhanced and the feeling of tackiness is removed. The nitrile construction protects against chemical penetration and projection.

The 7585 is free of latex, powder and silicone to prevent allergic reaction and skin irritation.

BENEFITS:
Disposable
Latex-free
Chemical-resistant
Water-resistant
Increased sensitivity
Durable
Increased visibility

FEATURES:
100% Nitrile
Silicone-free
Chlorinated
Fluorescent
Powder-free
Textured finish

APPLICATIONS:
Aerospace
Automotive
Chemicals
Cytotistics
Electronics
Food
Laboratory & healthcare
Painting
Pharmaceuticals & API
Printing
Quality control

Cat. III CE 0493 · EN 388: 2016 · EN 374-5: 2016 · EN 374-1: 2016/Type B · EN 455 MD CLASS 1

SHOWA

7502PF

POLYMER: **EBT NITRILE** LENGTH: **240MM** THICKNESS: **0.06MM** SIZE: **6/XS - 11XXL**

Designed for sensitive skin, the 7502PF nitrile disposable glove is powder, latex, and accelerator-free.

The 2.5mil/0.06mm nitrile provides good chemical protection from a wide array of chemical hazards.

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

BENEFITS:
Disposable
Biodegradable
Chemical-resistant
Latex-free

FEATURES:
Powder-free
Eco Best Technology (EBT)
Accelerator-free
Ambidextrous

APPLICATIONS:
HoReCa
Food packing & handling
Bakeries & delicatessens
Gardening
Washing & cleaning
Laboratory

SHOWA

7570

POLYMER: **NITRILE** LENGTH: **240MM** THICKNESS: **0.10MM** SIZE: **6/XS – 10/XL**

Ideal for highly sensitive skin, the 7570 single-use glove is free of powder, latex, silicone and accelerators.

Constructed with 100% fluorescent nitrile, the 7570 provides high protection performance against penetration and projection of chemicals.

To aid comfort, the disposable glove is chlorinated to reduce tackiness and give a second-skin feel. A textured finish on the fingertips enhances grip and tactility.

BENEFITS:
Disposable
Latex-free
Chemical-resistant
Water-resistant
Increased sensitivity
Lightweight

FEATURES:
100% Nitrile
Accelerator-free
Silicone-free
Chlorinated
Fluorescent
Powder-free

APPLICATIONS:
Agriculture & horticulture
Automotive repairs & maintenance
Chemicals
Food
Laboratory & healthcare
Pharmaceuticals & API

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

SHOWA

7550

POLYMER: NITRILE **LENGTH: 240MM** **THICKNESS: 0.10MM** **SIZE: 7/S – 10/XL**

SILICONE FREE

Consisting of 0.15mm 100% black nitrile, the 7550 antistatic disposable glove protects against chemical penetration and projection.

To reduce risk of allergies and aid comfort, the 7550 is free of latex, silicone, plasticisers and powder. The single-use glove is chlorinated to reduce tackiness within the glove.

An added textured finish increased grip without reducing fingertip sensitivity.

BENEFITS:
Acid-resistant
Oil-resistant
Hydrocarbon-resistant
Forearm protection
Natural latex-free
Water-resistant
Biodegradable

FEATURES:
100% Nitrile
Silicone-free
Chlorinated
Powder-free
Antistatic

APPLICATIONS:
Agriculture & horticulture
Aerospace
Automotive repairs & maintenance
Construction
Electronics
Food industry/HoReCa
Mechanical engineering
Painting & spray workshops
Petrochemical
Police & defense
Printing industry
Tattooing

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

SHOWA

7565

POLYMER: NITRILE **LENGTH: 300MM** **THICKNESS: 0.15MM** **SIZE: 7/S – 10/XL**

SILICONE FREE

Consisting of 0.10mm 100% black nitrile, the 7565 antistatic disposable glove protects against chemical penetration and projection.

To reduce risk of allergies and aid comfort, the 7565 is free of latex, silicone, plasticisers and powder. The single-use glove is chlorinated to enhance comfort and reduce tackiness within the glove.

An added textured finish increased grip without reducing fingertip sensitivity.

BENEFITS:
Disposable
Latex-free
Chemical-resistant
Water-resistant
Increased sensitivity
Lightweight

Features:
100% Nitrile
Silicone-free
Chlorinated
Powder-free
Antistatic

APPLICATIONS:
Agriculture & horticulture
Aerospace
Automotive repairs & maintenance
Construction
Electronics
Food industry/HoReCa
Mechanical engineering
Painting & spray workshops
Petrochemical
Police & defense
Printing industry
Tattooing

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

SHOWA

7540

POLYMER: NITRILE **LENGTH: 240MM** **THICKNESS: 0.10MM** **SIZE: 6/XS - 11/XXL**

SILICONE FREE

This thin, 0.10mm 100% nitrile disposable glove offers high-performance protection against chemical penetration and splashing.

For added comfort, the glove is twice chlorinated to reduce tackiness and create a soft, second-skin feel. Its latex, silicone and powder-free composition reduces risk of allergies and irritation.

A textured finish on the fingertips enhances grip when handling small components.

BENEFITS:
Disposable
Latex-free
Chemical-resistant
Water-resistant
Increased sensitivity

FEATURES:
100% Nitrile
Silicone-free
Chlorinated
Powder-free
Textured finish

APPLICATIONS:
Aerospace
Automotive
Chemicals
Cytotistics
Electronics
Food
Laboratory & healthcare
Painting
Pharmaceuticals & API
Printing
Quality control

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

SHOWA

7545

POLYMER: NITRILE **LENGTH: 300MM** **THICKNESS: 0.10MM** **SIZE: 7/S – 11/XXL**

SILICONE FREE

This cobalt blue, extra thin 0.10mm nitrile disposable glove is designed to reduce irritation and allergy risks, and provides enhanced chemical protection without compromising sensitivity.

By chlorinating the glove, the feeling of tackiness is removed. The nitrile construction protects against chemical penetration and projection.

The 7545 is free of latex, powder and silicone to prevent allergic reaction and skin irritation.

BENEFITS:
Disposable
Latex-free
Chemical-resistant
Water-resistant
Increased sensitivity
Lightweight
Forearm protection

FEATURES:
100% Nitrile
Silicone-free
Chlorinated
Fluorescent
Powder-free
Textured finish

APPLICATIONS:
Aerospace
Automotive
Chemicals
Cytotistics
Electronics
Food
Laboratory & healthcare
Painting
Pharmaceuticals & API
Printing
Quality control

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

SHOWA

7555

POLYMER: NITRILE **LENGTH: 300MM** **THICKNESS: 0.12MM** **SIZE: 6/XS – 10/XL**

SILICONE FREE

This cobalt blue 0.12mm thick 100% nitrile disposable glove is designed to reduce irritation and allergy risks, as well as providing chemical protection.

By chlorinating the glove, comfort is enhanced and the feeling of tackiness is removed. The nitrile construction protects against chemical penetration and projection.

The 7555 is free of latex, powder and silicone to prevent allergic reaction and skin irritation.

BENEFITS:
Disposable
Latex-free
Chemical-resistant
Water-resistant
Increased sensitivity
Lightweight
Forearm protection

FEATURES:
100% Nitrile
Silicone-free
Chlorinated
Fluorescent
Powder-free
Textured finish

APPLICATIONS:
Aerospace
Automotive
Chemicals
Cytotistics
Electronics
Food
Laboratory & healthcare
Painting
Pharmaceuticals & API
Printing
Quality control

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

SHOWA

C9905PF

POLYMER: NITRILE **LENGTH: 300MM** **THICKNESS: 0.12MM** **SIZE: 6/XS – 10/XL**

SILICONE FREE

This single-use glove is a Clean Room Device that is perfect for clean environments and similar technical work.

The 100% nitrile material and powder-free construction are ideal for reducing the risk of allergic reactions, and the 12” gauntlet offers additional forearm protection.

BENEFITS:
Disposable
Latex-free
Easy donning and doffing
Skin-friendly
Lightweight
Ergonomic shape

FEATURES:
Powder-free
100% Nitrile
Rolled cuff
Ergonomic
Smooth grip

APPLICATIONS:
Biotechnology
Cleanrooms
Integrated circuits
Laboratory
Life sciences
Microelectronics
Optics
Pharmaceuticals & API
Quality control
Semiconductors

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

EUROPEAN STANDARDS FOR PPE

CE CATEGORY

European Directive 89/686/EEC

CE

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

EN 420

General requirements and test methods

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

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

EN 388: 2016

Mechanical risks

a b c d e f

A) ABRASION RESISTANCE (0-4)

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

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

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

C) TEAR RESISTANCE (0-4)

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

D) PUNCTURE RESISTANCE (0-4)

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

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

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

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

F) IMPACT RESISTANCE (P)

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

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

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

EN 511: 2011

Cold-related risks

a b c

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

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

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

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

"X" means that the test was not performed or not possible.

EN 407: 2011

Heat-related risks

a b c d e f

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

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

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

"X" means that the test was not performed or not possible.

EN 1149-1

Antistatic properties

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

RISKS RELATED TO FOOD CONTACT

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

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

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

EUROPEAN DIRECTIVE 93/42/EEC

Covering medical examination and surgical gloves

EN 455-1

Freedom from holes

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

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

EN 455-2

Physical properties

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

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

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

EN 455-3

Biological evaluation

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

EN 455-4

Shelf life determination

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