



MAPA  
582  
ULTRA  
NITRILE  
GLOVES  
MADE IN MALAYSIA

MAPA 645  
NITRILE  
E  
STANDARD ISO 9001:2015  
HEALTHOLOGICALLY APPROVED  
MADE IN MALAYSIA

2024 CATALOGUE

# PROTECTIVE GLOVES

**MAPA**<sup>®</sup>  
PROFESSIONAL

The future is  
in our hands

MAPA PROFESSIONAL introduces its

# Corporate Social Responsibility initiative "Our Caring Actions"

Our long-term perspective centres around a process of continuous improvement to develop more responsible sourcing, mitigate our environmental impact and improve social standards with concrete actions and specific goals set within 2025. We are striving to meet our stakeholders' expectations whilst working towards a greener future in which we play an active role in terms of sustainability as we firmly believe that all our efforts, our caring actions for you, for us, no matter how big or small, once combined and multiplied, will have a positive impact.



#### PROTECTING THE PEOPLE WHO MANUFACTURE OUR GLOVES

- Safe and ergonomic workplaces : 100% of employees are equipped with appropriate PPE and are trained in safety issues
- Strict ethics policy (human rights and anti-corruption)
- Our factories are certified ISO 45001
- BSCI or SEDEX audits carried out in our factories each year
- All our factories & subcontractors are committed to our code of conduct, and all those in high-risk areas are audited annually

#### ENSURING A CARING CORPORATE CULTURE

- Our objective is to create best working conditions for our employees
- Developed training policy active social policy that goes beyond legal requirements
- Working actively to maintain professional equity within all our employees

#### GETTING INVOLVED LOCALLY

- Relationship of listening & dialogue with the local authorities and communities in the countries in which we operate
- A culture of caring, listening and solidarity: all mobilised in local actions



#### REDUCING ENVIRONMENTAL FOOTPRINT

- Selection of the most responsible raw materials possible, with a preference to raw materials and packaging sourced locally
- Close environmental footprint monitoring of our factories certified ISO 14001
- Reduction of our transport- related Greenhouse Gas emissions for all products shipped from our principal Warehouse based in France and strive to extend the learnings to our other sites (Fret 21 programme)

#### 2025 GOALS

Reduce the environmental footprint of our factories  
(contribution to Newell Brands goals from 2016 to 2025)



#### SYSTEMATISING ECO-DESIGN APPROACH

- Eco-design grid for each product & packaging development based on Life Cycle Analysis (LCA) to reduce our main environmental impacts
- 50% of cut resistant gloves are washable for:
  - ⊕ extended use
  - ⊕ waste reduction
- 100% of packaging is designed to be recyclable (according to local channels available)
- Plastic savings thanks to reduced packagings (average of 22 tons per year)
- Substitution of virgin LDPE plastic by recycled content

#### 2025 GOALS

##### ECO-DESIGN

- 100% of PET based gloves with RPET amongst cut range
- Work towards 100% of washable gloves amongst cut range
- Offer a range of FSC certified latex gloves

##### PACKAGING

- 100% of plastic packaging optimised (size reduction or suppression + integration of recycled materials)
- 100% of carton/paper packaging from recycled or certified sources

## A COMMITTED COMPANY

Mapa Professional is committed to offering companies **innovative solutions** for protecting the hands which meet users' needs.

Our brand is involved in **the health and safety** of users at their workplace.

Our offer meets requirements for **comfort and protection** for most risks in the professional environment.

## PROTECTION OF THE HAND MAPA PROFESSIONAL BEYOND THE GLOVE

We have a team dedicated to understanding our users' needs and to designing solutions suitable for use at workstations for most industries.



**1 Customer Engineering Department**  
stc.mapaspontex@newellco.com



**2 R&D centres**  
(30 engineers and technicians)



**Integrated production**  
(3 factories worldwide)



**1 Application laboratory**  
With tests exclusive to MAPA Professional which reproduce actual conditions of use over and above those specified in the framework (Grip, durability, dexterity, contact heat).

## HOW TO READ THIS CATALOGUE?

**Step 1:** Identify your protection needs



**PAGE 14**  
**Chemical protection**  
Disposable  
Reusable



**PAGE 34**  
**Mechanical protection**  
Cut protection  
Handling protection



**PAGE 52**  
**Thermal protection**



**PAGE 54**  
**Critical environment protection**

**Step 2:** Define the type of glove

Define the type of gloves that best meets your needs in terms of:

- **usage** (performance, comfort, environment, wearing time),
- **the environment and the risks involved.**

**Step 3:** Select the most appropriate reference

Select the most appropriate product to meet your needs with the help of the main technical characteristics table.

MATERIAL: PVC				MATERIAL: NATURAL LATEX			
frequent CONTACT				splashes			
short WEAR		continuous WEAR		short WEAR		intermittent WEAR	
<b>PYLOX V-5</b>	<b>PYLOX V-10</b>	<b>TELSOL 369</b>	<b>TELSOL 351</b>	<b>PYLOX V-20</b>	<b>VITAL 175</b>	<b>VITAL 165</b>	<b>VITAL 115</b>
Hand-specific, curved-finger design for low hand fatigue, excellent fit	Comfort, flexibility and curved-finger design provide excellent fit	Good mechanical protection against low chemical hazards	Comfort, flexibility and mechanical protection for low chemical hazards	Dexterity and flexibility, curved-finger design for low hand fatigue, excellent fit	Dexterity and flexibility for light aggressive environments	Light glove, supple and flexible	Precision dexterity in non-aggressive environments. Colour-coding to increase safety

## How to read the pictograms?



**MANUFACTURE**  
Fitting and assembling parts  
Paint spraying  
Handling chemical compounds  
Manufacturing composites  
Handling chemical drums



**HEALTH**  
Pharmaceutical preparation  
Medical manufacturing  
Research  
Hospitals and clinics



**MARITIME**  
Cultivation of fishing products



**CLEANING**  
Handling of detergents  
Industrial cleaning  
Small general maintenance jobs



**AERONAUTICS**  
Work with composite materials (resins)



**FOOD AND DRINK INDUSTRY**  
Food handling and preparations



**AGRICULTURE**  
Handling of diluted and concentrated pesticides  
Re-entry tasks

### PACKAGING INFORMATION



Pair/Bag



Pairs/Masterbag



Pairs/ Carton



**TRANSPORT**  
Maintenance of transport routes:  
rail - automobile - maritime - air



**CONSTRUCTION INDUSTRY**  
Handling construction materials  
Glazing



**ENERGY**  
Nuclear, wind turbine,  
petrochemical industries

# Regulation (EU) 2016/425

## Why a PPE Regulation?

Protective gloves are PPE (Personal Protective Equipment) and must comply with the European Regulation 2016/425 in order to freely circulate within the European Union.

The Regulation 2016/425 contains the requirements that PPE must satisfy to guarantee the health and safety of users.

That means that PPE must protect up to the required levels without compromising the user's health.

Harmonised European standards (EN 388, EN ISO 374-1...) are used in the certification process to assess conformity of the product to the requirements of the PPE Regulation in relation to the risks against which the product is intended to offer protection.

The manufacturer must indicate the conformity of the product by CE marking it. He must also provide a EU declaration of conformity.

## PPE Regulation (EU) 2016/425

This European Regulation was implemented on 21 April 2018. It replaced the European Directive 89/686/EC, which was withdrawn on this same date.

## Regulation (EU) 2016/425 and Directive 89/656/EEC

Regulation (EU) 2016/425 stipulates the essential health and safety requirements for designing and manufacturing PPE, as well as the responsibility of manufacturers or importers and conformity procedures to affix the CE marking on PPE.

Directive 89/656/EEC is dedicated to professional users of PPE. It lays down the responsibilities of employers to supply their employees with adequate CE-marked PPE and ensure their safe use.

## CATEGORIES OF RISK AND CORRESPONDING CERTIFICATION PROCEDURE

### CAT 1

Minimal risks only. The manufacturer is responsible for the conformity of its products.

### CAT 2

Risks other than CAT 1 and CAT 3. CE-certificate of conformity obtained from a Notified Body.

### CAT 3

Risks causing irreversible damage to health. CE-certificate of conformity and conformity of the production from Notified Bodies.



# How to read the standards

The following pictograms can help you understand the performance characteristics of a glove:

MECHANICAL PROTECTION	CHEMICAL AND MICRO-ORGANISMS PROTECTION	OTHERS	THERMAL PROTECTION																		
<p><b>MECHANICAL HAZARDS EN 388</b></p> <p><b>4 3 4 3 C (P)</b></p> <p>Protection against impacts (P)</p> <p><b>From A to F</b> ISO 13997 cut resistance</p> <p><b>From 0 to 4</b> Puncture resistance</p> <p><b>From 0 to 4</b> Tear resistance</p> <p><b>From 0 to 5</b> Couptest cut resistance</p> <p><b>From 0 to 4</b> Abrasion resistance</p>	<p><b>CHEMICAL PROTECTION EN ISO 374-1</b></p> <p>EN ISO 374-1 / TYPE A <b>U V W X Y Z</b></p> <p>Resistance to penetration EN 374-2 Breakthrough time <math>\geq 30</math> min for at least <b>6 chemicals</b> on the list (EN 16523-1)</p> <p>EN ISO 374-1 / TYPE B <b>X Y Z</b></p> <p>Resistance to penetration EN 374-2 Breakthrough time <math>\geq 30</math> min for at least <b>3 chemicals</b> on the list (EN 16523-1)</p> <p>EN ISO 374-1 / TYPE C <b>X</b></p> <p>Resistance to penetration EN 374-2 Breakthrough time <math>\geq 10</math> min for at least <b>1 chemical</b> on the new list (EN 16523-1)</p> <p>Degradation test according to EN 374-4 is undertaken without performance level requirement</p> <p><b>LETTER CODE</b></p> <table border="0"> <tr> <td><b>A</b> Methanol</td> <td><b>G</b> Diethylamine</td> <td><b>M</b> Nitric acid 65 %</td> </tr> <tr> <td><b>B</b> Acetone</td> <td><b>H</b> Tetrahydrofuran</td> <td><b>N</b> Acetic acid 99%</td> </tr> <tr> <td><b>C</b> Acetonitrile</td> <td><b>I</b> Ethyl acetate</td> <td><b>O</b> Ammonia 25%</td> </tr> <tr> <td><b>D</b> Dichloromethane</td> <td><b>J</b> n-Heptane</td> <td><b>P</b> Hydrogen peroxide 30%</td> </tr> <tr> <td><b>E</b> Carbon disulphide</td> <td><b>K</b> Sodium hydroxide 40%</td> <td><b>S</b> Hydrogen fluoride 40%</td> </tr> <tr> <td><b>F</b> Toluene</td> <td><b>L</b> Sulphuric acid 96%</td> <td><b>T</b> Formaldehyde 37%</td> </tr> </table> <p><b>MICRO-ORGANISMS PROTECTION EN ISO 374-5</b></p> <p>EN ISO 374-5 The gloves must pass the penetration resistance test EN 374-2.</p> <p>EN ISO 374-5 For gloves protecting against bacteria and fungi.</p> <p>EN ISO 374-5 For gloves protecting against bacteria, fungi and viruses.</p> <p><b>VIRUS</b></p>	<b>A</b> Methanol	<b>G</b> Diethylamine	<b>M</b> Nitric acid 65 %	<b>B</b> Acetone	<b>H</b> Tetrahydrofuran	<b>N</b> Acetic acid 99%	<b>C</b> Acetonitrile	<b>I</b> Ethyl acetate	<b>O</b> Ammonia 25%	<b>D</b> Dichloromethane	<b>J</b> n-Heptane	<b>P</b> Hydrogen peroxide 30%	<b>E</b> Carbon disulphide	<b>K</b> Sodium hydroxide 40%	<b>S</b> Hydrogen fluoride 40%	<b>F</b> Toluene	<b>L</b> Sulphuric acid 96%	<b>T</b> Formaldehyde 37%	<p><b>RADIOACTIVE CONTAMINATION EN 421</b></p> <p>WITH NO PERFORMANCE LEVELS</p> <p><b>PROTECTION AGAINST PESTICIDES ISO 18889</b></p> <p>G1 ISO 18889 Resistance to diluted pesticides/ no mechanical risk</p> <p>G2 ISO 18889 Resistance to diluted and concentrated pesticides/ mechanical risk</p> <p>GR ISO 18889 Re-entry tasks</p> <p><b>PROTECTION AGAINST STATIC ELECTRICITY EN 16350</b></p>	<p><b>COLD HAZARD EN 511</b></p> <p><b>3 2 1</b></p> <p><b>0 or 1</b> Water permeability</p> <p><b>From 0 to 4</b> Contact cold resistance</p> <p><b>From 0 to 4</b> Convective cold resistance</p> <p><b>HEAT AND FIRE EN 407</b></p> <p><b>X 2 X X X X</b></p> <p><b>From 0 to 4</b> Resistance to large quantities of molten metal</p> <p><b>From 0 to 4</b> Resistance to small drops of molten metal</p> <p><b>From 0 to 4</b> Radiant heat resistance</p> <p><b>From 0 to 4</b> Convective heat resistance</p> <p><b>From 0 to 4</b> Contact heat resistance</p> <p><b>From 0 to 4</b> Limited flame spread</p>
<b>A</b> Methanol	<b>G</b> Diethylamine	<b>M</b> Nitric acid 65 %																			
<b>B</b> Acetone	<b>H</b> Tetrahydrofuran	<b>N</b> Acetic acid 99%																			
<b>C</b> Acetonitrile	<b>I</b> Ethyl acetate	<b>O</b> Ammonia 25%																			
<b>D</b> Dichloromethane	<b>J</b> n-Heptane	<b>P</b> Hydrogen peroxide 30%																			
<b>E</b> Carbon disulphide	<b>K</b> Sodium hydroxide 40%	<b>S</b> Hydrogen fluoride 40%																			
<b>F</b> Toluene	<b>L</b> Sulphuric acid 96%	<b>T</b> Formaldehyde 37%																			

\*X: the test does not apply or the glove has not been tested

# Standards information

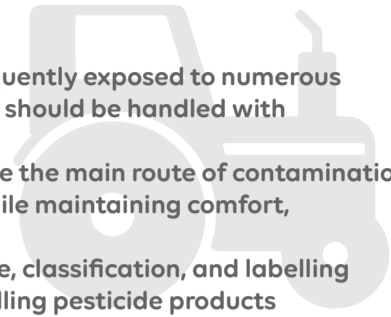
## PROTECTION AGAINST PESTICIDES

### ISO 18889: 2019 STANDARD

Protective gloves for pesticide operators and re-entry workers

#### BACKGROUND

Workers in farm and agriculture sectors are frequently exposed to numerous pesticides hazardous to health. These chemicals should be handled with precautions. Hand protection is fundamental as our hands are the main route of contamination. Gloves are necessary to protect against risks while maintaining comfort, ease of movement and dexterity. This standard establishes minimum performance, classification, and labelling requirements for gloves worn by operators handling pesticide products and re-entry workers.



### GLOVE CLASSIFICATION

Protective gloves are classified into 2 categories:

WHOLE HAND PROTECTION GLOVE		PARTIAL HAND PROTECTION GLOVE (fingertips and palm-side)
Relatively low potential risk	Higher potential risk	<b>GR gloves</b>  <b>ISO 18889</b> Re-entry worker who is in contact with <b>dry and partially dry</b> pesticide residues that <b>remain on the plant</b> after pesticide application. Mechanical properties that are required for several re-entry tasks. Breathable material in the back of the hand provides comfort.
<b>G1 gloves</b>  <b>ISO 18889</b> Handling <b>diluted</b> pesticides. No mechanical risk.	<b>G2 gloves</b>  <b>ISO 18889</b> Handling <b>diluted or concentrated</b> pesticides. Minimum mechanical resistance requirement.	
Disposable gloves	Chemical gloves	High dexterity mechanical gloves

## STATIC ELECTRICITY

Which standard deals with electrostatic properties?

GLOVES STANDARDS REQUIREMENT	TEST METHOD	PICTOGRAM
ATEX environment	EN 16350 Vertical resistance: <math><10^9 \Omega</math> at 25% relative humidity <i>*The tests must be performed on 5 samples which must all pass the limit of vertical resistance</i>	EN 1149-2 Introduced in EN ISO 21420: 2020 <b>NEW</b>
Protection of electronic devices from ElectroStatic Discharge (ESD)	No standard No test method	No pictogram

### ANSI/ISEA 105-2016:

The cut resistance standard from the American National Standards Institute (ANSI) and International Safety Equipment Association (ISEA) became effective in North America in March 2016. The updated ANSI/ISEA 105-2016 standard, based on the ASTM F2992-15 testing method, measures cut resistance for Industrial work gloves on a scale of A1-to-A9.

ANSI LEVEL	A1 CUT	A2 CUT	A3 CUT	A4 CUT	A5 CUT	A6 CUT	A7 CUT	A8 CUT	A9 CUT
Weight (grams) needed to cut through material	≥200	≥500	≥1,000	≥1,500	≥2,200	≥3,000	≥4,000	≥5,000	≥6,000

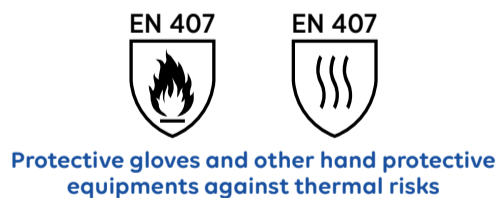
### ESD: MAPA PROFESSIONAL POSITION

Working in ATEX zones or handling electronic devices, both areas have the same need for suitable gloves : they must be dissipative. As there is no standard for ESD gloves, at MAPA PROFESSIONAL we decided to refer to the EN 16350 (ATEX gloves). This standard is very strict, so a glove complying to EN 16350 will be suitable for handling electronic devices.

# Standards changes

## EN 407

The EN 407 standard was revised in 2020. The main reason for the revision is the inclusion of thermal protection articles for private use (oven gloves, potholders, etc.) in the new PPE Regulation (EU) 2016/425. The performance levels remain unchanged!



BEFORE	NOW	BEFORE	NEW NOW
GLOVES RESISTANT TO FLAME			
EN 407  321XXX	EN 407  321XXX NO CHANGE	The performance levels were based on the average value of test results  No mechanical resistance requirement	The performance levels are based on the <b>lowest value</b> of test results  Introduction of a minimum mechanical resistance: <b>minimum level 1 (10N)</b> for tear resistance - EN 388
GLOVES NOT RESISTANT TO FLAME			
EN 407  X2XXXX	<b>NEW</b> EN 407  X2XXXX	Minimum length required by EN 420:2004  Issue with flame test with leather gloves	Higher minimum requirement of <b>length</b> for gloves that offer protection from <b>metal projection</b>  Test is now reliable

## EN ISO 21420

The EN 420 standard was revised in 2020 becoming standard EN ISO 21420. This updated standard newly specifies the general requirements and test methods for glove design and construction, safety, comfort and performance, as well as the marking and information provided by the manufacturer applicable to all protective gloves.

The new EN ISO 21420 additionally applies to:

- ▶ mittens
- ▶ pot holders
- ▶ arm protectors

NEW INNOCUOUSNESS	NEW ELECTROSTATIC PROPERTIES FOR ATEX AREA	NEW GLOVE SIZING	NEW GLOVE MARKING	NEW INSTRUCTIONS FOR USE
Limited content of DMFA (Dimethylformamide) in polyurethane (PU) gloves. It shall not exceed 1,000 mg/kg  Limited content of Polycyclic Aromatic Hydrocarbons (PAHs) in the rubber or plastic materials. It shall not exceed 1 mg/kg	<b>New pictogram</b>  EN 16350  The electrostatic properties shall be tested according to the EN 16350 standard (test method EN 1149-2)	No more minimum length required  Sizes of gloves are defined with respect to the sizes of the hands they are to fit!	For improved manufacturing batch traceability, gloves shall be marked with: ✔ <b>Manufacturing date</b> at least the month and year ✔ If applicable, <b>obsolescence date</b> behind the <b>pictogram</b>	Instructions relevant to donning, doffing and adjusting gloves Comfort and hygiene Protection from contamination Natural rubber content warning List of substances that can cause allergies (other than rubber) are no more mandatory* on instructions for use *on request

## UNDERSTANDING THE SPECIFIC FEATURES OF A GLOVE FOR AN INFORMED CHOICE

### Different cuff edging Depending on your use



#### Safety cuff

Wrist protection, quick glove removal and good ventilation of the hand. Perfect for jobs with a risk of entanglement.



#### Knitted cuff

Provides a good fit for the hand and protects the wrist



#### Straight cuff

Improved hand ventilation



#### Rolled cuff

Reduces the risk of tearing when doffing gloves



#### Scalloped/Pink Cuff

Longer service life for the glove

### Shapes, sizes and thicknesses

#### Glove length

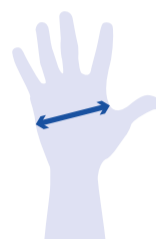
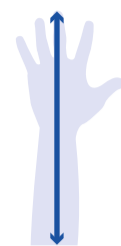
They must be chosen in accordance with the risks associated with the handling circumstances, to give more or less protection to the forearm. They generally vary between 22 and 60 cm.

#### Glove size

This depends on the circumference of the user's palm, and varies from size 5 to 12. This affects usage comfort.

#### Glove thickness

This influences the user's dexterity and the performance of the glove. Varies between 0.1 and 2.5 mm.



### Anatomical or ambidextrous gloves

#### Anatomical gloves

A glove is called anatomical when there is one shape for the left hand and another for the right.

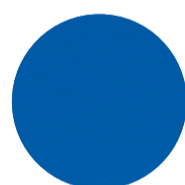


#### Ambidextrous gloves

Ambidextrous gloves can be worn equally well on either hand; this is mainly the case for thinner gloves.

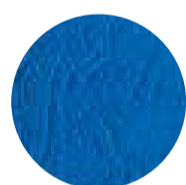


### Various external finishes to suit your needs



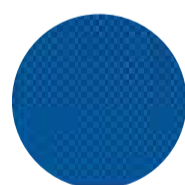
#### Smooth

No marking of objects being handled



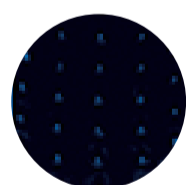
#### Reinforced grip

Excellent grip in wet environment



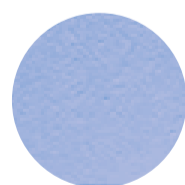
#### Non-slip embossed

Excellent grip in oily environments



#### Dot embossing

Improved thermal insulation



#### Pebbled

Good grip and minimal glove fouling

### The different types of internal finish

#### Powdered

Makes it easier to don and doff gloves, without having to increase the thickness of the glove.

#### Chlorinated/Easy donning treatment

Makes it easier to don and doff gloves without increasing the thickness and without using powder.

Reduces the allergy risk of natural latex gloves.

#### Flocked

Cotton-based textile fibres, covering the inside of the gloves.

Fleeced feel comparable with that of a fine carpet.

Good sweat absorption.

#### Textile support

Knitted interior, made from cotton or synthetic materials for increased comfort or specific performance.

MAPA has developed an exclusive technology for manufacturing a glove with textile support. This improves comfort for the user.

Use the «Ultracomfort» pictogram  to locate this technology.

### The different textile types:

#### Cotton

Comfort, thermal insulation and sweat absorption.

#### Polyamide

Optimised dexterity (thin, seamless).

#### Para-aramid

Cut and heat resistance.

#### High density polyethylene

Cut-resistance and optimised dexterity.

### MAPA TECHNOLOGIES (SEE NEXT PAGE)



Increased protection against acids for high end performance



Excellent grip in oily environments combined with liquid-proof protection in palm area



Comfort and allows hand to breathe without compromising durability

## UNDERSTANDING OUR TECHNOLOGIES



Our **TOPCHEM** technology offers increased protection against acids for high end performance



### COMFORT

- Flexibility and suppleness for ease of movement
- Optimal grip prevents hand fatigue

### RESISTANCE

- The specific combination of polymers provides a better degradation performance to acids
- Good mechanical resistance

### DURABILITY

- Extended use guaranteed by our process
- Higher durability allows a better productivity

Thanks to our expertise and reliable use testing, MAPA PROFESSIONAL has designed a product with **TOPCHEM** technology to protect against acids. This technology is used in our **ULTRANITRIL 410**.



Our **GRIP&PROOF** coating technology offers the following benefits for use in oily and dirty environments



### GRIP

- Excellent grip when handling oily parts with or without cut risks
- Prevents the risk of dropping objects
- Reduction in muscle fatigue and risk of RSI (Repetitive Strain Injury)
- Improves productivity

### RESISTANCE

- The durable coating allows long-lasting use
- Glove stays clean and effective for longer due to its liquid resistance
- Optimised costs

### SKIN PROTECTION

- Impermeable at strategic points
- Protects from irritant oils
- Reduces the wearer's risk of eczema and dermatitis

Thanks to our expertise and reliable use testing, MAPA PROFESSIONAL has designed a range of gloves with or without cut protection, with **GRIP&PROOF** technology for oily or greasy environments. This technology is used in our **ULTRANE** and **KRYTECH** ranges.



Our **RESICOMFORT** coating technology offers the following benefits for precise handling operations in dry environments



### COMFORT AND BREATHABILITY

- Excellent dexterity at fingertips
- Second skin effect
- Suppleness and flexibility
- Breathability: Greater circulation of air protects against sweat

### DURABILITY

- Extended use guaranteed by our exclusive process
- Resistance to friction thanks to a highly resistant coating
- Optimised costs

### SKIN PROTECTION

- DMF free
- Free from harmful substances
- **STANDARD 100 by OEKO-TEX®**

Thanks to our expertise and reliable use testing, MAPA PROFESSIONAL has designed a range of gloves with or without cutting protection, with **RESICOMFORT** technology for dry environments. This technology is used in our **ULTRANE** and **KRYTECH** ranges.

## NEW PRODUCTS

Products especially designed to meet chemical, mechanical and cut protection needs

### CHEMICAL PROTECTION

#### ULTRANITRIL 410

CHEMICAL PROTECTION  
TYPE A



Ideal glove for operations where cut & chemical protection are required

[See page 23](#)

#### TELSOL 369

CHEMICAL PROTECTION  
TYPE B



Hi-Vis PVC glove with excellent resistance to greases

[See page 17](#)

#### SOLO BLACK 935

CHEMICAL PROTECTION  
TYPE C



Good combination between dexterity and comfort for optimal protection

[See page 31](#)

### HANDLING PROTECTION

#### ULTRANE 664



Eco-designed handling glove made of recycled fibres\* with high dexterity and comfort

[\\*See page 37](#)

### THERMAL PROTECTION

#### TEMP-ICE 780

CHEMICAL PROTECTION  
TYPE B

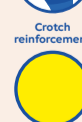


Hi-Vis PVC thermal glove with good resistance to oils, greases, and hydrocarbons

[See page 53](#)

### CUT PROTECTION

#### KRYTECH 692



Light cut protection with second skin effect for optimal comfort and dexterity thanks to its 18 gauge. High vision textile for reinforced safety

[See page 43](#)

#### KRYTECH 694



High cut protection with second skin effect for optimal comfort and dexterity thanks to its 18 gauge. High vision textile for reinforced safety

[See page 45](#)

# CHEMICAL PROTECTION

Chemical hazards are not confined to the chemical industry. Many people, in a variety of sectors, are faced with chemical risks when handling products which are aggressive to a greater or lesser extent (oils, acids, solvents, etc.).

**More than 100,000 chemical substances are now classified (identified by their CAS number).**

In order to meet the wide variety of aggressive situations that exist, Mapa Professional offers a wide range of protective gloves designed using polymers, which behave differently and provide different protection according to the situation.

The results of chemical testing and the different chemical classification indices must not be seen as the only factors when selecting a glove.

Actual usage conditions, the contact time with a given chemical, the concentration, the temperature, the usage frequency of a glove and the care conditions can affect glove performance.

All of these factors should be taken into account when choosing the right glove.

## THE MAPA GUIDE: 2 PERFORMANCE INDICATORS

To characterise the performance of the elastomers and plastics used to manufacture safety gloves, tests are carried out to determine the behaviour of these materials when confronted with the various families of chemical products.

Mapa Professional takes these different parameters into account to determine the relative performance of the different families of gloves and hence help you make the best possible choice.

### 1. PERMEATION TIMES

The permeation time for a given chemical product, i.e. the time taken for the chemical to penetrate the glove, at a molecular level; in some cases, there is no visible deterioration of the glove.

### 2. DEGRADATION INDEX

The degradation index of the glove in contact with a given chemical product, i.e. the degree of deterioration of the glove shown by an alteration of its physical properties (e.g. softening, hardening, etc.).



**4 easy steps** to find the **optimal protective glove match** according to your chemical risk.

- 1 Select up to 4 chemicals you handle
- 2 Specify your conditions of use
- 3 Identify your secondary needs
- 4 Display & refine recommendations

Browse product data and download the results!

## SELECT THE MOST APPROPRIATE CHEMICAL GLOVE FOR YOUR NEEDS USING THE THREE STAGES BELOW:

1 Identify which family of chemical products the substance you are handling belongs to ▼			2 Determine the most appropriate protective material for your specific application. ▼				3 Choose your gloves according to the level of protection you require. <b>next pages</b> ▶		
YOU ARE HANDLING	CAS	EN 374	PVC	NATURAL LATEX	NITRILE	POLY-CHLOROPRENE	BUTYL	FLUORO-ELASTOMER	
			Common polymers*				Specific polymers**		
			RECOMMENDATION BY MAPA PROFESSIONAL			● Light protection	●● Strong protection	●●● Optimal protection	
ALCOHOLS (methanol 100%)	67-56-1	A		●	●	●●	●●●	●●	
KETONE (acetone 100%)	67-64-1	B		●		●	●●●		
NITRILES (acetonitrile methyl cyanide 99%)	75-05-8	C				●	●●●	●	
CHLORINATED SOLVENTS (methylene chloride/dichloromethane 99%)	75-09-2	D						●	
SULPHUR-BASED CHEMICALS (carbon disulphide 100%)	75-15-0	E			●			●●●	
AROMATIC SOLVENTS (toluene 100%)	108-88-3	F			●			●●●	
AMINES (diethylamine 98%)	109-89-7	G			●			●●	
ETHERS (tetrahydrofuran (THF) 100%)	109-99-9	H			●	●	●	●	
ESTERS (ethyl acetate 99%)	141-78-6	I			●	●	●●●		
ALIPHATIC SOLVENTS (heptane 99%)	142-82-5	J	●		●●●	●●		●●●	
ALKALIS (sodium hydroxide (soda) 40%)	1310-73-2	K	●●●	●●●	●●●	●●●	●●●	●●●	
OXIDISING ACID (sulphuric acid 96%)	7664-93-9	L	●	●		●●	●●●	●●●	
OXIDISING ACID (nitric acid 65%)	7697-37-2	M	●	●●●		●●●	●●●	●●●	
ORGANIC ACID (acetic acid 99%)	64-19-7	N	●	●		●●●	●●●	●●	
ORGANIC BASE (ammonia 25%)	1336-21-6	O	●	●	●●		●●●	●●	
PEROXIDE (hydrogen peroxide 30%)	7722-84-1	P	●●●	●●●	●●●	●●●	●●●	●●●	
HYDROFLUORIC ACID (hydrogen fluoride 40%)	7664-39-3	S		●●●		●●●	●●●	●●	
ALDEHYDE (formaldehyde 37%)	50-00-0	T	●●●	●●●	●●●	●●●	●●●	●●●	

\* The most frequently used materials for manufacturing chemical protection gloves.

\*\* Protection targeted against certain aggressive chemical product families, these are more stringent than for standard materials.



### ADVANTAGES

### RESTRICTIONS

Value for money  
Mechanical strength

Not suitable for handling hot parts

Excellent flexibility  
Good puncture and tearing resistance  
Suitable for cold environments

Risk of allergies caused by the proteins in the natural latex

Good puncture and abrasion resistance  
No risk of protein-related allergies

Not recommended for cold environments

Good flexibility  
Good thermal resistance

Poor mechanical properties

Excellent chemical resistance  
Flexible and elastic

Poor mechanical properties

High chemical resistance



# CHEMICAL PROTECTION

## REUSABLE: PVC - NATURAL LATEX

### RANGE



#### HOW CAN YOU REFINE YOUR CHOICE?

### 1 RISK

Combination between contact time and the aggressiveness of the chemical being handled.

Choose the performance of your gloves based on the type of risk:

#### splashes

Chemical substances diluted by immersion or splashes of aggressive substances

#### frequent contact

Pure or mixed chemical substances in frequent contact

#### prolonged contact (or immersion)

Pure or mixed chemical substances in frequent contact

### 2 WEAR TIME

Identifies the comfort level required by the operator the longer the wear time, the more comfortable the glove needs to be (perspiration, flexibility/fatigue).

#### short wear

Chlorinated interior finish

#### intermittent wear

Flocked interior finish

#### continuous wear

Fabric-lined interior finish

#### ultra-comfort wear

MAPA exclusive technology providing greater flexibility

MATERIAL PVC			
 frequent CONTACT			
 short WEAR		 continuous WEAR	
<b>PYLOX V-5</b>  Hand-specific, curved-finger design for low hand fatigue, excellent fit	<b>PYLOX V-10</b>  Comfort, flexibility and curved-finger design provide excellent fit	<b>TELSOL 369</b>  Good mechanical protection against low chemical hazards	<b>TELSOL 351</b>  Comfort, flexibility and mechanical protection for low chemical hazards <small>(available upon request)</small>
Internal finish Powdered	Internal finish Powdered	Internal finish Textile support	Internal finish Textile support
External finish Smooth	External finish Smooth	External finish Pebbled	External finish Pebbled
Size M, L, XL	Size M, L, XL	Size 9 10	Size 8 9 10
Length 110.5 in 26.7 cm	Length 10.5 in 26.7 cm	Length 14 in 35 cm	Length 12 in 30 cm
Thickness 5 mil 0.13 mm	Thickness 10 mil 0.25 mm	Thickness 1.20 mm	Thickness 1.35 mm
CAT 3		CAT 3	
 EN ISO 374-5:2016		 EN ISO 374-1 TYPE B  EN ISO 374-5  EN ISO 374-1 TYPE A  KPT  KLMNPT	
			

MATERIAL NATURAL LATEX			
 splashes			
 short WEAR		 intermittent WEAR	
<b>PYLOX V-20</b>  Dexterity and flexibility, curved-finger design for low hand fatigue, excellent fit	<b>VITAL 175</b>  Dexterity and flexibility for light aggressive environments <small>(available upon request)</small>	<b>VITAL 165</b>  Light glove, supple and flexible <small>(available upon request)</small>	<b>VITAL 115</b>  Precision dexterity in non-aggressive environments. Colour-coding to increase safety <small>(available upon request)</small>
Internal finish Powdered	Internal finish Easy donning treatment	Internal finish Flocked	Internal finish Flocked
External finish Smooth	External finish Non-slip embossed	External finish Non-slip embossed	External finish Non-slip embossed
Size L, XL	Size 6 7 8 9 10	Size 7 8 9 10	Size 6 7 8 9
Length 10.5 in 26.7 cm	Length 12 in 31 cm	Length 12 in 30 cm	Length 12 in 30.5 cm
Thickness 20 mil 0.50 mm	Thickness 0.40 mm	Thickness 0.29 mm	Thickness 0.35 mm
CAT 3		CAT 1	
 EN ISO 374-5:2016		 EN ISO 374-1 TYPE B  EN ISO 374-5  EN ISO 374-1 TYPE B  EN ISO 374-5  VIRUS  EN ISO 374-1 TYPE B  EN ISO 374-5  KPT  0010X	
			

# CHEMICAL PROTECTION

## REUSABLE: NATURAL RUBBER RANGE



### HOW CAN YOU REFINE YOUR CHOICE?

#### 1 RISK

Combination between contact time and the aggressiveness of the chemical being handled.

Choose the performance of your gloves based on the type of risk:

##### splashes

Chemical substances diluted by immersion or splashes of aggressive substances

##### frequent contact

Pure or mixed chemical substances in frequent contact

##### prolonged contact (or immersion)

Pure or mixed chemical substances in frequent contact

#### 2 WEAR TIME

Identifies the comfort level required by the operator the longer the wear time, the more comfortable the glove needs to be (perspiration, flexibility/fatigue).

##### short wear

Chlorinated interior finish

##### intermittent wear

Flocked interior finish

##### continuous wear

Fabric-lined interior finish

##### ultra-comfort wear

MAPA exclusive technology providing greater flexibility

MATERIAL LATEX MIX		MATERIAL NATURAL LATEX		
frequent CONTACT		splashes		frequent CONTACT
intermittent WEAR		short WEAR	intermittent WEAR	continuous WEAR
<b>ALTO 405 ACTIVATED</b>  <small>designed in partnership with </small> <b>A unique antimicrobial liquidproof glove that limits cross contamination by viruses &amp; bacteria</b>	<b>CLASSICS L-200</b>  <b>Dexterity and flexibility in light aggressive environments</b>	<b>SURE-GRIP LF-128</b>  <b>Precision dexterity in non-aggressive environments</b> Flock lining to absorb perspiration	<b>JERSETTE 307</b>  <small>(available upon request)</small> <b>Exceptional comfort and precision dexterity in light aggressive environments</b>	<b>JERSETTE 315 (300, 301, 308)</b>  <small>(available upon request)</small> <b>Maximum comfort for long-term work in aggressive environments</b>
Internal finish Flocked External finish Non-slip embossed Size 6 7 8 9 10 Length 13 in 33 cm Thickness 0.70 mm	Internal finish Unlined External finish Embossed texture Size 7 8 9 10 11 Length 12 in 31 cm Thickness 18 mil 0.46 mm	Internal finish Flocked External finish Embossed texture Size 7 8 9 10 11 Length 12 in 31 cm Thickness 20 mil 0.50 mm	Internal finish Textile support External finish Embossed Size 6 7 8 9 Length 12 in 31 cm Thickness 0.75 mm	Internal finish Textile support External finish Reinforced grip Size 300: 5 6 7 8 9 10 301: 5 6 7 8 9 10 308: 6 7 8 9 10 315: 7 8 9 10 Length 300: 12 in 31 cm 301: 12 in 31 cm 308: 12 in 31 cm 315: 12.5 in 32 cm Thickness Hvy Wt. 0.75 mm
CAT 3		CAT 3		CAT 2
EN 388 2110X EN ISO 374-1 TYPE B KMT EN ISO 374-5 VIRUS EN 421	EN 388:2016 0010X EN ISO 374-5:2016 EN 421	EN 388:2016 0010X EN ISO 374-5:2016 EN 421	EN 388 2120X EN 407: 2020 X1XXXX	EN 388:2016 2131X EN ISO 374-1:2016 TYPE B KPT EN 407 X1XXXX

# CHEMICAL PROTECTION

## REUSABLE: NATURAL RUBBER RANGE



### HOW CAN YOU REFINE YOUR CHOICE?

#### 1 RISK

Combination between contact time and the aggressiveness of the chemical being handled.  
Choose the performance of your gloves based on the type of risk:

**splashes**

Chemical substances diluted by immersion or splashes of aggressive substances

**frequent contact**

Pure or mixed chemical substances in frequent contact

**prolonged contact (or immersion)**

Pure or mixed chemical substances in frequent contact

#### 2 WEAR TIME

Identifies the comfort level required by the operator the longer the wear time, the more comfortable the glove needs to be (perspiration, flexibility/fatigue).

**short wear**

Chlorinated interior finish

**intermittent wear**

Flocked interior finish

**continuous wear**

Fabric-lined interior finish

**ultra-comfort wear**

MAPA exclusive technology providing greater flexibility

MATERIAL <b>LATEX MIX</b>		MATERIAL <b>LATEX</b>	
<b>frequent CONTACT</b>			
<b>intermittent WEAR</b>		<b>continuous WEAR</b>	
<b>PROTECTOR AFR-282</b>  <b>Strong protection against aggressive detergents</b>	<b>TWO-TONE NS-53</b>  <b>Precision dexterity in aggressive environments</b>	<b>TRIDENT 286</b>  <b>Good mechanical performance for long-lasting chemical protection</b>	<b>TRIDENT 287</b>  <b>Good mechanical performance extra long-length for added chemical protection</b>
Internal finish <b>Flocked</b> External finish <b>Non-slip embossing</b> Size <b>6 7 8 9 10</b> Length <b>13 in 33 cm</b> Thickness <b>26 mil 0.60 mm</b>	Internal finish <b>Flocked</b> External finish <b>Non-slip embossing</b> Size <b>7 8 9 10</b> Length <b>13 in 33 cm</b> Thickness <b>28 mil 0.70 mm</b>	Internal finish <b>Chlorinated</b> External finish <b>Smooth</b> Size <b>9 10 11</b> Length <b>18 in 46 cm</b> Thickness <b>40 mil 1.0 mm</b>	Internal finish <b>Chlorinated</b> External finish <b>Smooth</b> Size <b>9 10 11</b> Length <b>23 in 59 cm</b> Thickness <b>35 mil 0.88 mm</b>
CAT 3   		CAT 3    	

# CHEMICAL PROTECTION

## REUSABLE: NITRILE CHEMICAL RANGE



### HOW CAN YOU REFINE YOUR CHOICE?

#### 1 RISK

Combination between contact time and the aggressiveness of the chemical being handled.

Choose the performance of your gloves based on the type of risk:

##### splashes

Chemical substances diluted by immersion or splashes of aggressive substances

##### frequent contact

Pure or mixed chemical substances in frequent contact

##### prolonged contact (or immersion)

Pure or mixed chemical substances in frequent contact

#### 2 WEAR TIME

Identifies the comfort level required by the operator the longer the wear time, the more comfortable the glove needs to be (perspiration, flexibility/fatigue).

##### short wear

Chlorinated interior finish

##### intermittent wear

























Flocked interior finish

##### continuous wear

Fabric-lined interior finish

##### ultra-comfort wear

MAPA exclusive technology providing greater flexibility

MATERIAL PVC / NITRILE		MATERIAL NITRILE		
 frequent CONTACT		 splashes		 frequent CONTACT
 ultra-comfort WEAR		 short WEAR		 intermittent WEAR
<b>ULTRANITRIL 410</b>  TOPCHEM TECHNOLOGY ANSI A3 CUT (available upon request)		<b>ULTRANITRIL 472</b>  (available upon request)		<b>ULTRANITRIL 485*</b>  (available upon request)
<b>ULTRANITRIL 491*</b>  (available upon request)		<b>STANSOLV AF15/AF18</b>  (available upon request)		
<b>Cut and Chemical protection with better degradation performance against acids</b>		<b>Fingertip precision for light chemical protection and food handling</b>		<b>Good sensitivity for standard chemical protection</b>
<b>Good mechanical resistance and long-lasting chemical protection</b>		<b>Good mechanical resistance and longlasting chemical protection</b>		
Internal finish High-visibility yellow seamless knitted textile support in composite fibres External finish Reinforced grip Size 7 8 9 10 11 Length 14 in 35 cm Thickness 1.70 mm		Internal finish Easy donning treatment External finish Pebbled Size 6 7 8 9 10 Length 12 in 31 cm Thickness 0.20 mm		Internal finish Flocked External finish Non-slip embossed Size 7 8 9 10 Length 12 in 31 cm Thickness 0.34 mm
Internal finish Flocked External finish Non-slip embossed Size 6 7 8 9 10 Length 15 in 37 cm Thickness 0.38 mm		Internal finish Flocked External finish Non-slip embossed Size AF15 Sz 7 8 9 10 11 AF18 Sz 6 7 8 9 10 11 Length AF15 Sz 12 in 30 cm AF18 Sz 13 in 33 cm Thickness AF15 Sz 15 mil 18 mil AF18 Sz 0.38 mm 0.46 mm		
CAT 3		 CAT 3		CAT 3
EN 388  4X31C EN ISO 374-1 TYPE A  KLMNPT ANSI A3 CUT  EN 407: 2020  X1XXXX		EN 388  2101X EN ISO 374-1 TYPE B  JOT EN ISO 374-5  VIRUS EN 421 		EN 388  3101X EN ISO 374-1 TYPE B  JKOPT EN ISO 374-5  VIRUS ISO 18889 
EN 388:2016  3101X EN ISO 374-1 TYPE A  AJKOPT EN ISO 374-5:2016  VIRUS ISO 18889 		EN 388:2016  3101X EN ISO 374-1 TYPE A  AJKOPT EN ISO 374-5:2016  VIRUS ISO 18889 		
				

# CHEMICAL PROTECTION REUSABLE: NITRILE CHEMICAL RANGE



## HOW CAN YOU REFINE YOUR CHOICE?

### 1 RISK

Combination between contact time and the aggressiveness of the chemical being handled.  
Choose the performance of your gloves based on the type of risk:

**splashes**

Chemical substances diluted by immersion or splashes of aggressive substances

**frequent contact**

Pure or mixed chemical substances in frequent contact

**prolonged contact (or immersion)**

Pure or mixed chemical substances in frequent contact

### 2 WEAR TIME

Identifies the comfort level required by the operator the longer the wear time, the more comfortable the glove needs to be (perspiration, flexibility/fatigue).

**short wear**

Chlorinated interior finish

**intermittent wear**

Flocked interior finish

**continuous wear**

Fabric-lined interior finish

**ultra-comfort wear**

MAPA exclusive technology providing greater flexibility

MATERIAL NITRILE						
<b>splashes</b>	<b>frequent CONTACT</b>		<b>prolonged CONTACT</b>			
<b>short WEAR</b>	<b>intermittent WEAR</b>		<b>ultra-comfort WEAR</b>	<b>short WEAR</b>	<b>intermittent WEAR</b>	<b>continuous WEAR</b>
<b>STANSOLV A10</b>	<b>STANSOLV A15</b>	<b>STANSOLV A490</b>	<b>ULTRANITRIL 381</b>	<b>ULTRANITRIL 480</b>	<b>ULTRANITRIL 493*</b>	<b>STANSOLV A14</b>
Fingertip precision for light chemical and food handling	High mechanical strength does not compromise the excellent comfort and dexterity	Precision dexterity in mildly aggressive environments, for those sensitive to natural latex	Maximum comfort for standard chemical protection	Ultra-long chemical protection	Ultra-long chemical protection	Comfort and reinforced mechanical resistance for longlasting chemical protection
Internal finish Chlorinated External finish Z-grip Size 6 7 8 9 10 11 Length 13 in 33 cm Thickness 11 mil 0.28 mm	Internal finish Chlorinated External finish Z-grip Size 6 7 8 9 10 11 Length 13 in 33 cm Thickness 15 mil 0.38 mm	Internal finish Chlorinated External finish Non-slip embossing Size 6 7 8 9 10 11 Length 12.5 in 32 cm Thickness 15 mil 0.38 mm	Internal finish Textile support External finish Non-slip embossed Size 7 8 9 10 11 Length 14 in 36 cm Thickness Med. Wt. 0.95 mm	Internal finish Chlorinated External finish Non-slip embossed Size 7 8 9 10 11 Length 18 in 46 cm Thickness 22 mil 0.55 mm	Internal finish Flocked External finish Non-slip embossed Size 8 9 10 11 Length 15 in 39 cm Thickness 22 mil 0.55 mm	Internal finish Textile support External finish Z-grip Size 7 8 9 10 11 Length 14 in 35.5 cm Thickness 22 mil 0.55 mm
CAT 3 EN ISO 388:2016 3001X EN ISO 374-1:2016 TYPE B JOT EN ISO 374-5:2016 EN 421	CAT 3 EN ISO 388:2016 2101X EN ISO 374-1:2016 TYPE B JOT EN ISO 374-5:2016	CAT 3 EN ISO 388:2016 2000X EN ISO 374-1:2016 TYPE B KPT EN ISO 374-5:2016	CAT 3 EN 388 3111A EN ISO 374-1 TYPE A AJKLOPT EN 407:2020 X1XXXX EN ISO 374-5 ISO 18889 G2	CAT 3 EN 388 4102X EN ISO 374-1 TYPE A AJKOPT EN ISO 374-5 ISO 18889 G2	CAT 3 EN 388 4102X EN ISO 374-1 TYPE A AJKOPT EN ISO 374-5 ISO 18889 G2	CAT 3 EN ISO 388:2016 4102X EN ISO 374-1 TYPE A AJKOPT EN ISO 374-5:2016 ISO 18889 G2

# CHEMICAL PROTECTION

## REUSABLE: NEOPRENE CHEMICAL RANGE



### HOW CAN YOU REFINE YOUR CHOICE?

**1 RISK**  
Combination between contact time and the aggressiveness of the chemical being handled.  
Choose the performance of your gloves based on the type of risk:

- splashes**  
Chemical substances diluted by immersion or splashes of aggressive substances
- frequent contact**  
Pure or mixed chemical substances in frequent contact
- prolonged contact (or immersion)**  
Pure or mixed chemical substances in frequent contact

**2 WEAR TIME**  
Identifies the comfort level required by the operator the longer the wear time, the more comfortable the glove needs to be (perspiration, flexibility/fatigue).

- short wear**  
Chlorinated interior finish
- intermittent wear**  
Flocked interior finish
- continuous wear**  
Fabric-lined interior finish
- ultra-comfort wear**  
MAPA exclusive technology providing greater flexibility

MATERIAL <b>POLYCHLOROPRENE (NEOPRENE)</b>						
<b>splashes</b>		<b>frequent CONTACT</b>			<b>prolonged CONTACT</b>	
<b>intermittent WEAR</b>	<b>continuous WEAR</b>	<b>intermittent WEAR</b>	<b>continuous WEAR</b>	<b>ultra-comfort WEAR</b>	<b>short WEAR</b>	<b>continuous WEAR</b>
<b>ULTRANE0 401</b>	<b>STANSOLV NL34/NL52</b>	<b>ULTRANE0 420</b>	<b>CHEMPLY N360</b>	<b>ULTRANE0 382</b>	<b>CHEMPLY N440/N540</b>	<b>ULTRANE0 339</b>
Tactile sensitivity for light chemical protection	Comfort with light chemical protection	Suppleness and freedom of movement for standard chemical protection	Ultra-high performance chemical protection	Maximum comfort for standard chemical protection	Ultra-high performance chemical protection	Comfort and high chemical protection
Internal finish Flocked	Internal finish Textile support	Internal finish Flocked	Internal finish Chlorinated	Internal finish Textile support	Internal finish Chlorinated	Internal finish Textile support
External finish Non-slip embossed	External finish Sandy rough	External finish Non-slip embossed	External finish Z-grip	External finish Non-slip embossed	External finish Z-grip	External finish Pebbled
Size 6 7 8 9 10 11	Size NL34: 6 7 8 9 NL52: 8 9 10 11	Size 420: 6 7 8 9 10 11 450: 7 8 9 10 11	Size 9 10 11	Size 6 7 8 9 10	Size 9 10 11	Size 8 9 10 11
Length 12 in 31 cm	Length NL34: 12 in 31 cm NL52: 14 in 35.5 cm	Length 420: 12 in 31 cm 450: 16 in 41 cm	Length N360: 14 in 35.5 cm N730: 18 in 45.5 cm	Length 14 in 36 cm	Length N440/N540: 14 in 35.5 cm N740: 18 in 45.5 cm	Length 14 in 36 cm
Thickness 20 mil 0.55 mm	Thickness Med. Wt.	Thickness 30 mil 0.75 mm	Thickness 22 mil 0.75 mm	Thickness Med. Wt. 0.90 mm	Thickness N440/N740: 30 mil 0.75mm N540: 40 mil 1.01mm	Thickness Hvy. Wt. 1.35 mm
CAT 3	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3
EN ISO 388 2110X	EN ISO 388 2121X	EN ISO 388 2121X	EN ISO 388 2111X	EN ISO 388 2121X	EN ISO 388 2111X	EN ISO 388 3121X
EN ISO 374-1 TYPE A ALMNST	EN ISO 374-1 TYPE A ALMNST	EN ISO 374-1 TYPE A ALMNST	EN ISO 374-1 TYPE A ABCJLMNS	EN ISO 374-1 TYPE A ALMNST	EN ISO 374-1 TYPE A ABCJLMNS	EN ISO 374-1 TYPE A ABCJLMNS
EN ISO 374-5	EN 407: 2020 X1XXXX	EN ISO 374-5	EN ISO 374-5	EN 407: 2020 X1XXXX	EN ISO 374-5	EN 407: 2020 X1XXXX



# CHEMICAL PROTECTION

## REUSABLE: BUTYL CHEMICAL RANGE



### HOW CAN YOU REFINE YOUR CHOICE?

#### 1 RISK

Combination between contact time and the aggressiveness of the chemical being handled.

Choose the performance of your gloves based on the type of risk:

##### splashes

Chemical substances diluted by immersion or splashes of aggressive substances

##### frequent contact

Pure or mixed chemical substances in frequent contact

##### prolonged contact (or immersion)

Pure or mixed chemical substances in frequent contact

#### 2 WEAR TIME

Identifies the comfort level required by the operator the longer the wear time, the more comfortable the glove needs to be (perspiration, flexibility/fatigue).

##### short wear

Chlorinated interior finish

##### intermittent wear



























Flocked interior finish

##### continuous wear

Fabric-lined interior finish

##### ultra-comfort wear

MAPA exclusive technology providing greater flexibility

MATERIAL BUTYL		MATERIAL FLUOROELASTOMER
 <b>short WEAR</b>	 <b>ultra-comfort WEAR</b>	 <b>short WEAR</b>
<p><b>BUTOFLEX 651</b></p>  <p><b>Ultimate specific chemical resistance</b></p>	<p><b>BUTOFLEX 650</b></p>  <p><b>Ultimate specific chemical resistance</b></p>	<p><b>FLUOTECH 468</b></p>  <p><b>Tactile sensitivity with wear indicator</b></p>
<p>Internal finish <b>Powder free</b></p> <p>External finish <b>Non-slip embossed</b></p> <p>Size <b>7 8 9 10</b></p> <p>Length <b>14 in 37 cm</b></p> <p>Thickness <b>20 mil 0.50 mm</b></p>	<p>Internal finish <b>Textile support</b></p> <p>External finish <b>Non-slip embossed</b></p> <p>Size <b>7 8 9 10</b></p> <p>Length <b>14 in 35 cm</b></p> <p>Thickness <b>Med Wt. 1.45 mm</b></p>	<p>Internal finish <b>Chlorinated</b></p> <p>External finish <b>Smooth</b></p> <p>Size <b>8 9 10</b></p> <p>Length <b>12 in 30 cm</b></p> <p>Thickness <b>20 mil 0.50 mm</b></p>
CAT 3		CAT 3
<p>EN 388  <b>0010X</b></p> <p>EN ISO 374-5 </p> <p>EN ISO 374-1 TYPE A  <b>ABCILMNOS</b></p> <p>EN 16350 </p>	<p>EN 388  <b>1121X</b></p> <p>EN ISO 374-1 TYPE A  <b>ABCILMNOS</b></p> <p>EN ISO 374-5 </p>	<p>EN 388  <b>3102X</b></p> <p>EN ISO 374-1 TYPE A  <b>ADEFGJLMNO</b></p> <p>EN ISO 374-5 </p>
    		    

# CHEMICAL PROTECTION DISPOSABLE: SOLO RANGE

MAPA Professional offers a range of disposable gloves to meet your needs regardless of your working environment. The use of different polymers optimises the ergonomics and performance of the gloves: flexibility, resistance and comfort.



## DISPOSABLE GLOVES

There are several advantages of disposable gloves:

- **Freedom of movement**
- **Protection for hands and the products being handled**
- **Rolled cuff to prevent tearing while ensuring the glove stays in place on the arm**

## 4 ADDITIONAL CRITERIA TO REFINE YOUR CHOICE

### 1 POLYMERS

#### PVC

Mechanical strength and price.

#### LATEX

Flexibility and comfort.

#### NITRILE (next page)

Mechanical resistance and resistance to oils.

#### TRIPOLYMER (next page)

Flexibility, mechanical strength and chemical resistance to splashes.

### 2 COMFORT AND FLEXIBILITY

The various interior finishes (powdered/chlorinated) make it possible to adapt to the type of application and the specific requirements of the wearer.

#### POWDERED

Better sweat absorption.

#### CHLORINATED

Easy donning and no powder on hands.

#### EASY DONNING TREATMENT

Makes it easier to don and doff gloves, without increasing the thickness and without using powder.































Reduces the allergy risk of natural latex gloves.

### 3 COLOUR

The use of different colours is in response to the unique demands of certain sectors and it enables visual checks by allocating a specific colour to each application.

### 4 DIMENSIONS

Choosing the length and thickness of the glove makes it possible to factor in the limitations related to the workstation: dexterity, resistance and forearm protection.

POLYMER NITRILE / VINYL		POLYMER NITRILE			
COMFORT POWDER FREE		COMFORT CHLORINATED			
<b>SOLO BLACK 935</b>  Suppleness and optimal resistance	<b>SOLO 967</b>  Excellent dexterity due to the flexibility and thinness of the material. Supplied in bags or boxes (Solo BOX 967)	<b>SOLO 977</b>  Ideal splash protection for use in the chemical industry	<b>SOLO 999</b>  Excellent mechanical resistance, ideal in oily environments	<b>SOLO 997</b>  The perfect protection for light handling in oily environments	<b>SOLO 980</b>  The perfect protection for light handling in oily environments
External finish Smooth Size 6 7 8 9 Length 9.5 in 24 cm Thickness 3 mil 0.08 mm	Internal finish Chlorinated External finish Smooth with pebbled fingertips Size 6 7 8 9 Length 10 in 25 cm Thickness 3 mil 0.07 mm	Internal finish Chlorinated External finish Pebbled Size 6 7 8 9 10 Length 9.5 in 24 cm Thickness 4 mil 0.13 mm	Internal finish Chlorinated External finish Pebbled Size 6 7 8 9 Length 11.5 in 29.5 cm Thickness 4 mil 0.10 mm	Internal finish Chlorinated External finish Smooth with pebbled fingertips Size 6 7 8 9 Length 10 in 24 cm Thickness 4 mil 0.10 mm	Internal finish Chlorinated External finish Smooth with pebbled fingertips Size 6 7 8 9 10 11 Length 12 in 30 cm Thickness 8 mil 0.20 mm
 CAT 3	 CAT 3	 CAT 3	 CAT 3	 CAT 3	 CAT 3
EN ISO 374-1 TYPE C 	EN ISO 374-5 	EN ISO 374-1 TYPE C 	EN ISO 374-5 	EN ISO 374-1 TYPE B 	EN ISO 374-5 
ISO 18889 	JKT 	JKT 	VIRUS 	JKT 	VIRUS 
JKT 	VIRUS 	JKT 	VIRUS 	JKT 	VIRUS 





# CHEMICAL PROTECTION DISPOSABLE: TRILITES RANGE

MAPA Professional offers a range of disposable gloves to meet your needs regardless of your working environment. The use of different polymers optimises the ergonomics and performance of the gloves: flexibility, resistance and comfort.



## DISPOSABLE GLOVES

There are several advantages of disposable gloves:

- **Freedom of movement**
- **Protection for hands and the products being handled**
- **Rolled cuff to prevent tearing while ensuring the glove stays in place on the arm**

## 4 ADDITIONAL CRITERIA TO REFINE YOUR CHOICE

### 1 POLYMERS

**PVC** (previous page)  
Mechanical strength and price.

**LATEX** (previous page)  
Flexibility and comfort.

**NITRILE**  
Mechanical resistance and resistance to oils.

**TRIPOLYMER**  
Flexibility, mechanical strength and chemical resistance to splashes.

### 2 COMFORT AND FLEXIBILITY

The various interior finishes (powdered/chlorinated) make it possible to adapt to the type of application and the specific requirements of the wearer.

**POWDERED**  
Better sweat absorption.

**CHLORINATED**  
Easy donning and no powder on hands.





**EASY DONNING TREATMENT**  
Makes it easier to don and doff gloves, without increasing the thickness and without using powder.  
Reduces the allergy risk of natural latex gloves.

### 3 COLOUR

The use of different colours is in response to the unique demands of certain sectors and it enables visual checks by allocating a specific colour to each application.

### 4 DIMENSIONS

Choosing the length and thickness of the glove makes it possible to factor in the limitations related to the workstation: dexterity, resistance and forearm protection.

POLYMER <b>TRIPOLYMER</b>	
COMFORT <b>CHLORINATED</b>	
<b>TRILITES 994</b>  	<b>TRILITES GRIPPY 993/983</b>  
<b>Tripolymer formula for protection against chemical splashes and splatters</b>	<b>Tripolymer formula for protection against chemical splashes and splatters</b>
Internal finish <b>Chlorinated</b>  External finish <b>Pebbled</b>  Size <b>6 7 8 9</b>  Length <b>10 in 25 cm</b>  Thickness <b>6 mil 0.15 mm</b>	Internal finish <b>Chlorinated</b>  External finish <b>Non-Slip Grip</b>  Size <b>6 7 8 9</b>  Length <b>983: 11.5 in 29 cm 993: 10 in 25.5 cm</b>  Thickness <b>6 mil 0.15 mm</b>
CAT 3	CAT 3
EN ISO 374-1 TYPE B  KPT	EN ISO 374-5   EN ISO 374-1 TYPE B  KPT
  	

# MECHANICAL PROTECTION HANDLING PROTECTION: ULTRANE RANGE

The Mapa Professional Handling Protection range meets requirements for hand comfort and protection when carrying out a wide variety of work.



## PRECISION WORK

The ULTRANE range represents all that is needed for precision work requiring a high-level of dexterity while maintaining a sense of touch when handling small or delicate parts.

- Ease of movement (comfort)
- Service life suitable for daily use
- Suitable for different environments (dry, wet, oily, greasy, dirty, etc.)
- Superior performance in slippery settings for certain products

## HOW CAN YOU REFINE YOUR CHOICE?

### 1 ENVIRONMENT

Select the glove most suitable for your working environment:

**dry** and **relatively clean** environments

**oily** and **very dirty** environments

**wet** environments

### 2 SERVICE LIFE

The service life of a glove for precision work is directly linked to the thickness of the polymer layer covering the fabric and to the adhesion and nature of the fabric in a given environment.

**short** service life

**long** service life

**high-performance** service life

## PRECISION WORK

ENVIRONMENT  
**dry and relatively clean**

**short**  
SERVICE LIFE

**long**  
SERVICE LIFE

ULTRANE 548		ULTRANE 648		ULTRANE 524		ULTRANE 551		ULTRANE 510		ULTRANE 681	
Optimal dexterity and sensitivity offering light protection		Optimal dexterity and sensitivity offering light protection. Suitable for touch screens		Protection of electronic device from ElectroStatic Discharge (ESD)		Unbeatable for fingertip precision		Optimal comfort, high level of breathability and durability for precision work		Second skin effect for optimal comfort and dexterity thanks to its 18 gauge	
Liner Seamless knitted textile support		Liner Seamless textile support		Liner Seamless textile with conductive fibres		Liner Seamless knitted textile support		Liner Seamless knitted textile support		Liner Seamless knitted textile support	
Gauge 13		Gauge 13		Gauge 18		Gauge 13		Gauge 13		Gauge 18	
Coating Polyurethane coating on palm and fingers		Coating Ventilated back Polyurethane coating on palm and fingers		Coating Polyurethane coating on palm and fingers		Coating Polyurethane coating on palm and fingers		Coating Polymer coating with aqueous base on palm and fingers		Coating Foam nitrile coating on palm and fingers	
Cuff Knitted wrist		Cuff Knitted wrist		Cuff Knitted wrist		Cuff Knitted wrist		Cuff Knitted wrist		Cuff Knitted wrist	
Size 548: 5 6 7 8 9 10 11 size 5 available upon request		Size 5 6 7 8 9 10 11 size 5 available upon request		Size 6 7 8 9 10 11		Size 5 6 7 8 9 10 11 size 5 available upon request		Size 6 7 8 9 10 11		Size 6 7 8 9 10 11	
Length 8.5-10.5 in 20-27 cm		Length 8.5-10.5 in 21-27 cm		Length 8.5-10.5 in 22-27 cm		Length 8.5-10.5 in 20-27 cm		Length 8.5-10.5 in 22-27 cm		Length 9-11 in 23-28 cm	
				Washable x1				Washable x1		Washable x1	
CAT 2		CAT 2		CAT 2		CAT 2		CAT 2		CAT 2	

# MECHANICAL PROTECTION HANDLING PROTECTION: ULTRANE RANGE



## PRECISION WORK

The **ULTRANE** range represents all that is needed for precision work requiring a high-level of dexterity while maintaining a sense of touch when handling small or delicate parts.

- Ease of movement (comfort)
- Service life suitable for daily use
- Suitable for different environments (dry, wet, oily, greasy, dirty, etc.)
- Superior performance in slippery settings for certain products

## HOW CAN YOU REFINE YOUR CHOICE?

### 1 ENVIRONMENT

Select the glove most suitable for your working environment:

- dry** and **relatively clean** environments
- oily** and **very dirty** environments
- wet** environments

### 2 SERVICE LIFE

The service life of a glove for precision work is directly linked to the thickness of the polymer layer covering the fabric and to the adhesion and nature of the fabric in a given environment.

- short** service life
- long** service life
- high-performance** service life

## PRECISION WORK

ENVIRONMENT  
**dry and relatively clean**

ENVIRONMENT  
**oily and very dirty**

**high-performance**  
SERVICE LIFE

### ULTRANE 527



Detachable fingers to prevent entanglement. Comfort, suppleness and high dexterity without compromising breathability and durability

### ULTRANE 541



Comfort, suppleness and high dexterity without compromising breathability and durability

### ULTRANE 664



Eco-designed handling glove made of recycled fibres\* with high dexterity and comfort

### ULTRANE 500\*



Assured grip, skin protected and excellent dexterity in lightly oily/dirty environments

Liner  
Seamless textile with patent pending specific knitting technology by MAPA PROFESSIONAL  
Gauge 15  
Coating  
Foam nitrile coating with sandy finish on palm and fingers  
Cuff  
Knitted wrist  
Size  
6 7 8 9 10 11  
Length 8.5-10.5 in 22-28 cm  
Washable x1

Liner  
Seamless knitted textile support  
Gauge 15  
Coating  
Foam nitrile coating with sandy finish on palm and fingers  
Cuff  
Knitted wrist  
Size  
6 7 8 9 10 11  
Length 8.5-10.5 in 22-28 cm  
Washable x1

Liner  
Seamless knitted textile support made of recycled polyester fibres (\*39% of the liner i.e. 20% of the total weight of the glove)  
Gauge 15  
Coating  
Foam nitrile coating on palm and fingers  
Cuff  
Knitted wrist  
Size  
6 7 8 9 10 11  
Length 8.5-10.5 in 21-27 cm  
Washable x1

Liner  
Seamless knitted textile support  
Gauge 13  
Coating  
Double layer coating:  
Smooth nitrile - Sandy nitrile  
500: palm and fingers  
525: 3/4 coating  
526: complete coating  
Size  
500/525: 6 7 8 9 10 11  
526: 7 8 9 10 11  
Length 8.5-10.5 in 21-27 cm  
Washable x3



CAT 2



CAT 2



CAT 2



CAT 3



# MECHANICAL PROTECTION

## HANDLING PROTECTION:

### EXONIT RANGE

#### HEAVY-DUTY WORK

The TITAN/HARPON range provides the hands with armour for protection when handling heavy objects

- Easy to don and doff gloves
- Ease of movement and gripping
- Service life suitable for daily use
- Suitable for different environments (dry, wet, oily, greasy, dirty, etc.)
- Superior performance in slippery settings for certain products



#### HOW CAN YOU REFINE YOUR CHOICE?

##### 1 ENVIRONMENT

Select the glove most suitable for your working environment:

- ☐ **dry** and **relatively clean** environments
- 🛢️ **oily** and **very dirty** environments
- 💧 **wet** environments

##### 2 SERVICE LIFE

The service life of a glove for heavy-duty work is directly linked to the thickness of the polymer layer covering the fabric and to the adhesion and nature of the fabric in a given environment.

- 🕒 **short** service life
- 🕒 **long** service life
- 🕒 **high-performance** service life

#### HEAVY-DUTY WORK

🛢️ **oily and very dirty**  
ENVIRONMENTS

**Heat and Cut**  
**Protection**

🕒 **high-performance**  
SERVICE LIFE

#### EXONIT 852



GRIP & PROOF  
TECHNOLOGY



(available upon request)

Shock absorption on the back, comfort thanks to palm pads and dexterity

#### EXONIT 530



Flexible Thermal Protection with impact and cut protection

Liner  
Seamless knitted textile support

Gauge 13

Coating  
Complete Grip & Proof nitrile coating  
Double layer coating:  
Smooth nitrile - Sandy Nitrile  
TPR full protection pad on back-of-hands

Cuff  
Knitted wrist

Size  
9 10 11

Length  
25.5-27.5cm

Liner  
Aramid Fiber

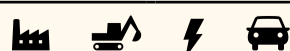
Gauge 13

Coating  
Raised high grip nitrile dots  
TPR full protection pad  
on back-of-hands

Size  
7 9 11

Length  
9.5-11 in

CAT 2



# MECHANICAL PROTECTION

## CUT PROTECTION: KRYTECH RANGE

The Mapa Professional range of cut-protection gloves provides excellent hand comfort and protection specially designed for various types of work involving cut hazards.



### PRECISION WORK

Select your cut-protection gloves according to your specific needs. For precision work, you need gloves that act like a second skin, protecting against cuts but maintaining excellent dexterity.

### IMPORTANT

Using cut-protection gloves does not guarantee total protection (for instance, when using a cutting machine). Furthermore, the EN 388 and ISO 13997 test results give no more than an indicative average value, and an on-site study may be recommended to determine the most appropriate type of protection for a workstation. Do not hesitate to contact our technical department for further information.

### HOW CAN YOU REFINE YOUR CHOICE?

#### 1 ENVIRONMENT

Select the glove most suitable for your working environment:

- dry** and **relatively clean** environments
- oily** and **very dirty** environments
- wet** environments

#### 2 RISK

The higher the level of performance, the greater the glove's resistance to the combined effects of the sharpness of the object's cutting edge and the pressure applied.

- low** risk - ISO B
- moderate** risk - ISO C
- high** risk - ISO D
- very high** risk - ISO E

#### 3 SERVICE LIFE

The service life of a glove for precision work is directly linked to the thickness of the polymer layer covering the fabric and the nature of the fabric, in a given environment.

- short** service life
- long** service life
- high-performance** service life

**dry and relatively clean**  
ENVIRONMENTS

**low**  
RISK

**short**  
SERVICE LIFE

**long**  
SERVICE LIFE

#### KRYTECH 578



Light cut protection for very precise handling in clean and dirty environments

#### KRYTECH 579



Light cut protection for very precise handling in reasonably clean environments

#### KRYTECH 584



#### KRYTECH 809



Light cut protection with high comfort, suppleness and durability for precision work even in dirty environments. With or without crotch reinforcement

Liner  
Seamless knitted textile support in HDPE fibres  
Gauge 13  
Coating  
Polyurethane coating  
Cuff  
Knitted wrist  
Size  
6 7 8 9 10 11  
Length  
8.5-10.5 in 22-27 cm  
Washable x3

Liner  
Seamless textile support in HDPE fibres  
Gauge 13  
Coating  
Polyurethane coating on palm and fingers  
Cuff  
Knitted wrist  
Size  
5 6 7 8 9 10 11  
size 5 available upon request  
Length  
8.5-10.5 in 22-27 cm  
Washable x5

Liner  
Seamless textile support in HDPE fibres  
Gauge 13  
Coating  
Polyurethane coating on palm and fingers  
Cuff  
Knitted wrist  
Size  
6 7 8 9 10 11  
Length  
10.5-12.5 in 27-32 cm  
Washable x5

Liner  
Seamless knitted textile support in composite and HDPE fibres  
Gauge 13  
Coating  
Polyurethane coating on palm and fingers  
Cuff  
Knitted wrist  
Size  
5 6 7 8 9 10 11  
size 5 available upon request  
Length 8.5-10.5 in 21-27 cm  
Washable x5

CAT 2



ISO 13997: 5N



CAT 2



ISO 13997: 5.3N



CAT 2



ISO 13997: 5.3N



CAT 2



ISO 13997: 9.5N



# MECHANICAL PROTECTION

## CUT PROTECTION: KRYTECH RANGE

The Mapa Professional range of cut-protection gloves provides excellent hand comfort and protection specially designed for various types of work involving cut hazards.



### PRECISION WORK

Select your cut-protection gloves according to your specific needs. For precision work, you need gloves that act like a second skin, protecting against cuts but maintaining excellent dexterity.

### IMPORTANT

Using cut-protection gloves does not guarantee total protection (for instance, when using a cutting machine). Furthermore, the EN 388 and ISO 13997 test results give no more than an indicative average value, and an on-site study may be recommended to determine the most appropriate type of protection for a workstation. Do not hesitate to contact our technical department for further information.

### HOW CAN YOU REFINE YOUR CHOICE?

#### 1 ENVIRONMENT

Select the glove most suitable for your working environment:

- dry** and **relatively clean** environments
- oily** and **very dirty** environments
- wet** environments

#### 2 RISK

The higher the level of performance, the greater the glove's resistance to the combined effects of the sharpness of the object's cutting edge and the pressure applied.

- low** risk - ISO B
- moderate** risk - ISO C
- high** risk - ISO D
- very high** risk - ISO E

#### 3 SERVICE LIFE

The service life of a glove for precision work is directly linked to the thickness of the polymer layer covering the fabric and the nature of the fabric, in a given environment.

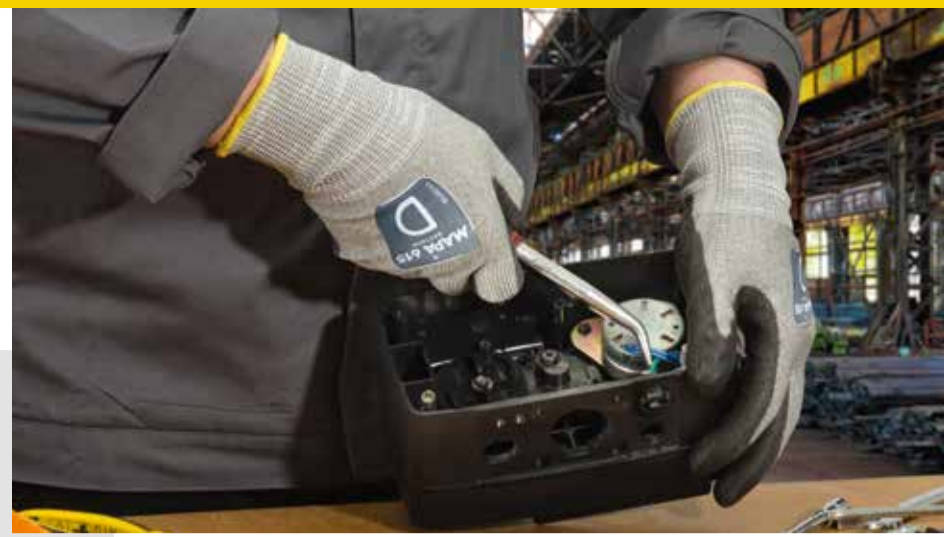
- short** service life
- long** service life
- high-performance** service life

### dry and relatively clean ENVIRONMENTS

<b>low</b> RISK		<b>moderate</b> RISK		
<b>long</b> SERVICE LIFE	<b>high-performance</b> SERVICE LIFE	<b>long</b> SERVICE LIFE	<b>high-performance</b> SERVICE LIFE	
<p><b>KRYTECH 692</b></p> <ul style="list-style-type: none"> <li> Touch Screen</li> <li> Crotch reinforcement</li> <li> High visibility</li> </ul> <p>Light cut protection with second skin effect for optimal comfort and dexterity thanks to its 18 gauge. High vision textile for reinforced safety</p>	<p><b>KRYTECH 642</b></p> <ul style="list-style-type: none"> <li> RESICOMFORT TECHNOLOGY</li> <li> Touch Screen</li> </ul> <p>Comfort, suppleness and high dexterity without compromising on cut protection, breathability and durability</p> <p>(available upon request)</p>	<p><b>KRYTECH 610</b></p> <p>Moderate cut protection providing maximum comfort. A seamless plated knit glove providing a very good fit, dexterity and flexibility</p>	<p><b>KRYTECH 693</b></p> <ul style="list-style-type: none"> <li> Touch Screen</li> <li> Crotch reinforcement</li> <li> High visibility</li> </ul> <p>Medium cut protection with second skin effect for optimal comfort and dexterity thanks to its 18 gauge. High vision textile for reinforced safety</p> <p>(available upon request)</p>	<p><b>KRYTECH 643</b></p> <ul style="list-style-type: none"> <li> RESICOMFORT TECHNOLOGY</li> <li> Touch Screen</li> </ul> <p>Comfort, suppleness and high dexterity without compromising cut protection, breathability and durability</p> <p>(available upon request)</p>
<p>Liner Seamless knitted textile support in composite and HDPE fibres Gauge 18 Coating Foam nitrile coating on palm and fingers Cuff Knitted wrist Size 6 7 8 9 10 11 Length 9.5-11.5 in 24-29 cm Washable x1</p>	<p>Liner Seamless knitted textile support in composite and HDPE fibres Gauge 15 Coating Foam nitrile coating with sandy finish on palm and fingers Cuff Knitted wrist Size 6 7 8 9 10 11 Length 8.5-10.5 in 23-28 cm Washable x1</p>	<p>Liner Seamless knitted textile support in composite and HDPE fibres Gauge 13 Coating Polyurethane coating on palm and fingers Cuff Knitted wrist Size 6 7 8 9 10 11 Length 9-11 in 23-28 cm Washable x3</p>	<p>Liner Seamless knitted textile support in composite and HDPE fibres Gauge 18 Coating Foam nitrile coating on palm and fingers Cuff Knitted wrist Size 6 7 8 9 10 11 Length 9.5-11.5 in 24-29 cm Washable x1</p>	<p>Liner Seamless Knitted textile Support in composite and HDPE fibres Gauge 15 Coating Foam nitrile coating with sandy finish on palm and fingers Cuff Knitted wrist Size 6 7 8 9 10 11 Length 8.5-10.5 in 23-28 cm Washable x1</p>
<b>OEKO TEX</b> STANDARD 100 CO 8992 IFTH		<b>OEKO TEX</b> STANDARD 100 CO 8992 IFTH		
EN 388 <b>3X42B</b> ISO 13997: 9.7N		ANSI <b>A2</b> CUT		EN 407: 2020 <b>X1XXXX</b>
EN 388 <b>4X42B</b> ISO 13997: 5.7N		ANSI <b>A3</b> CUT		ANSI <b>A3</b> CUT
EN 388 <b>4X43C</b> ISO 13997: 14.9N		EN 388 <b>4X42C</b> ISO 13997: 14.5N		EN 388 <b>4X42C</b> ISO 13997: 13.5N

# MECHANICAL PROTECTION

## CUT PROTECTION: KRYTECH RANGE



### PRECISION WORK

Select your cut-protection gloves according to your specific needs. For precision work, you need gloves that act like a second skin, protecting against cuts but maintaining excellent dexterity.

### HOW CAN YOU REFINE YOUR CHOICE?

#### 1 ENVIRONMENT

Select the glove most suitable for your working environment:

- dry** and **relatively clean** environments
- oily** and **very dirty** environments
- wet** environments

#### 2 RISK

The higher the level of performance, the greater the glove's resistance to the combined effects of the sharpness of the object's cutting edge and the pressure applied.

- low** risk - ISO B
- moderate** risk - ISO C
- high** risk - ISO D
- very high** risk - ISO E

#### 3 SERVICE LIFE

The service life of a glove for precision work is directly linked to the thickness of the polymer layer covering the fabric and the nature of the fabric, in a given environment.

- short** service life
- long** service life
- high-performance** service life

**dry and relatively clean**  
ENVIRONMENTS

**high**  
RISK

**very high**  
RISK

**long**  
SERVICE LIFE

**high-performance**  
SERVICE LIFE

#### KRYTECH 615



High cut protection providing maximum comfort. A seamless plated knit glove for very good fit, dexterity and flexibility

Liner  
Seamless knitted textile support in composite and HDPE fibres

Gauge 13

Coating  
Polyurethane coating on palm and fingers

Cuff  
Knitted wrist

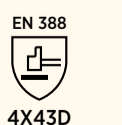
Size  
6 7 8 9 10 11

Length  
9.5-11.75 in 24-29 cm

Washable x3



CAT 2



ISO 13997: 20N

#### KRYTECH 694



High cut protection with second skin effect for optimal comfort and dexterity thanks to its 18 gauge. High vision textile for reinforced safety

Liner  
Seamless knitted textile support in composite and HDPE fibres

Gauge 18

Coating  
Foam nitrile coating on palm and fingers

Cuff  
Knitted wrist

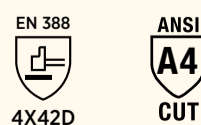
Size  
6 7 8 9 10 11

Length  
9.5-11.5 in 24-29 cm

Washable x1



CAT 2



ISO 13997: 18N

#### KRYTECH 622



Very high cut protection, comfortable thanks to excellent adjustment and good compatibility with touch screens

Liner  
Seamless knitted textile support in composite and HDPE fibres

Gauge 13

Coating  
Polyurethane coating on palm and fingers

Cuff  
Knitted wrist

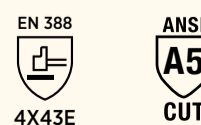
Size  
6 7 8 9 10 11

Length  
9.5-11.5 in 24-29 cm

Washable x5



CAT 2



ISO 13997: 29.5N

#### KRYTECH 644 KRYTECH 645



Comfort, suppleness and high dexterity without compromising on cut protection, breathability and durability. Suitable for touch screens

Liner  
Seamless knitted textile support in composite and HDPE fibres

Gauge 15

Coating  
Foam nitrile coating with sandy finish on palm and fingers

Cuff  
Knitted wrist

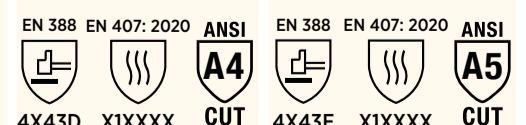
Size  
6 7 8 9 10 11

Length  
9-11 in 23-28 cm

Washable x1



CAT 2



ISO 13997: 16N ISO 13997: 29.5N

(available upon request)



# MECHANICAL PROTECTION

## CUT PROTECTION:

### KRYTECH GRIP & PROOF RANGE



#### PRECISION WORK

Select your cut-protection gloves according to your specific needs. For precision work, you need gloves that act like a second skin, protecting against cuts but maintaining excellent dexterity.

#### HOW CAN YOU REFINE YOUR CHOICE?

##### 1 ENVIRONMENT

Select the glove most suitable for your working environment:

- dry** and **relatively clean** environments
- oily** and **very dirty** environments
- wet** environments

##### 2 RISK

The higher the level of performance, the greater the glove's resistance to the combined effects of the sharpness of the object's cutting edge and the pressure applied.

- low** risk - ISO B
- moderate** risk - ISO C
- high** risk - ISO D
- very high** risk - ISO E

##### 3 SERVICE LIFE

The service life of a glove for precision work is directly linked to the thickness of the polymer layer covering the fabric and the nature of the fabric, in a given environment.

- short** service life
- long** service life
- high-performance** service life

**oily and very dirty**  
ENVIRONMENTS

**low**  
RISK

**high**  
RISK

**high-performance**  
SERVICE LIFE

#### KRYTECH 580



Eco-designed cut protection glove with grip and skin protection for precise handling in slightly oily and dirty environments

Liner  
Seamless textile support in HDPE fibres and recycled polyester fibres (\*25% of the liner i.e. 15% of the total weight of the glove)

Gauge 13

Coating  
Double layer coating:  
Smooth nitrile - Sandy Nitrile

Cuff  
Knitted wrist

Size  
6 7 8 9 10 11

Length  
9-11 in 23-27 cm



CAT 3

EN 388 4X42B  
EN 407: 2020 X1XXXX  
ISO 18889 GR  
ANSI A2 CUT  
ISO 13997: 6N

#### KRYTECH 599



Eco-designed cut protection glove with grip and skin protection for complex handling operations in oily environments

Liner  
Seamless textile support in HDPE fibres and recycled polyester fibres (\*39% of the liner i.e. 23% of the total weight of the glove)

Gauge 13

Coating  
Double layer coating:  
Smooth nitrile - Sandy Nitrile

Cuff  
Knitted wrist

Size  
7 8 9 10 11

Length  
9-11 in 23-27 cm



CAT 3

EN 388 4X42B  
EN 407: 2020 X1XXXX  
ISO 18889 GR  
ANSI A2 CUT  
ISO 13997: 6N

#### KRYTECH 600



Eco-designed cut protection glove with grip and skin protection for complex handling operations in very oily environments

Liner  
Seamless textile support in HDPE fibres and recycled polyester fibres (\*39% of the liner i.e. 22% of the total weight of the glove)

Gauge 13

Coating  
Double layer coating:  
Smooth nitrile - Sandy Nitrile

Cuff  
Knitted wrist

Size  
7 8 9 10

Length  
9-11 in 23-26 cm



CAT 3

EN 388 4X42B  
EN 407: 2020 X1XXXX  
ISO 18889 GR  
ANSI A2 CUT  
ISO 13997: 6N

#### KRYTECH 582



High cut protection for complex handling operations in oily environments

Liner  
Seamless knitted textile support in composite and HDPE fibres

Gauge 13

Coating  
3/4 nitrile coating  
Double layer coating:  
Smooth nitrile - Sandy Nitrile

Cuff  
Knitted wrist

Size  
6 7 8 9 10 11

Length 9-11 in 23-28 cm

Washable x5



CAT 2

EN 388 4X43D  
ANSI A4 CUT  
ISO 13997: 18N





# MECHANICAL PROTECTION

## CUT PROTECTION:

### KRYTECH SLEEVE RANGE



#### PRECISION WORK

Cut-protection with improved comfort, dexterity and safety.

#### HOW CAN YOU REFINE YOUR CHOICE?

##### 1 ENVIRONMENT

Select the cuff most suitable for your working environment:

- dry** and **relatively clean** environments
- oily** and **very dirty** environments
- wet** environments

##### 2 RISK

The higher the level of performance, the greater the ability of the cuff to stand up to the combined effects of the sharpness of the cutting edge and the pressure applied.

- low** risk - ISO B
- moderate** risk - ISO C
- high** risk - ISO D
- very high** risk - ISO E

for all environments

<b>low</b> RISK	<b>moderate</b> RISK	<b>high</b> RISK
<p style="text-align: center;"><b>KRYTECH 532</b></p>  <p style="text-align: center;"><b>Adjustable seamless knitted sleeves that provide light cut protection, optimal comfort and freedom of movement to the wearer</b></p>	<p style="text-align: center;"><b>KRYTECH 603</b></p>  <p style="text-align: center;"><b>Adjustable and ultra-comfortable sleeves designed with an advanced seamless knit for a perfect fit, fresh feel and excellent flexibility providing moderate cut protection</b></p>	<p style="text-align: center;"><b>KRYTECH 538/537</b></p>  <p style="text-align: center;"><b>Adjustable seamless knitted sleeves that provide high cut protection, optimal comfort and freedom of movement to the wearer</b></p>
<p>Liner Seamless knitted textile support in HDPE fibres</p> <p>Specific features Self-gripping tape closure system Thumbslot</p> <p>Gauge 13 Length 18 in 45 cm Width 140 mm Size Unique Washable x5</p> <p style="text-align: center;"></p>	<p>Liner Seamless knitted textile support in HDPE fibres</p> <p>Specific features Self-gripping tape closure system High visibility thumbslot</p> <p>Gauge 15 Length 20 in 53 cm Width 120 mm Size Unique Washable x3</p> <p style="text-align: center;"></p>	<p>Liner Seamless knitted textile support in HDPE and composite fibres</p> <p>Specific features Self-gripping tape closure system Thumbslot</p> <p>Gauge 13 Length 538: 24 in 60 cm 537: 18 in 45 cm Width 150 mm Size Unique Washable x5</p> <p style="text-align: center;"></p>
<p style="text-align: center;"> <b>EN 388</b>  <b>ANSI A2</b>                      3X4XB CUT                      ISO 13997: 5.3N                 </p>	<p style="text-align: center;"> <b>EN 388</b>  <b>ANSI A3</b>                      3X42C CUT                      ISO 13997: 11.6N                 </p>	<p style="text-align: center;"> <b>EN 388</b>  <b>ANSI A4</b>                      3X4XD CUT                      ISO 13997: 17.8N                 </p>



# MECHANICAL PROTECTION

## CUT PROTECTION: KRYTECH RANGE



### HEAVY-DUTY WORK

Select your cut-protection gloves according to your specific needs.  
For heavy-duty work, your gloves must protect against cuts and impacts but also need to be tough and long lasting.

### HOW CAN YOU REFINE YOUR CHOICE?

#### 1 ENVIRONMENT

Select the glove most suitable for your working environment:

- dry** and **relatively clean** environments
- oily** and **very dirty** environments
- wet** environments

#### 2 RISK

The higher the level of performance, the greater the glove's resistance to the combined effects of the sharpness of the object's cutting edge and the pressure applied.

- low** risk - ISO B
- moderate** risk - ISO C
- high** risk - ISO D
- very high** risk - ISO E

#### 3 SERVICE LIFE

The service life of a glove for heavy-duty work is directly linked to the thickness of the polymer layer covering the fabric and the nature of the fabric, in a given environment.

- short** service life
- long** service life
- high-performance** service life



**wet**  
ENVIRONMENTS



**oily and very dirty**  
ENVIRONMENTS



**high**  
RISK



**high-performance**  
SERVICE LIFE

### KRYTECH 840



High cut protection for handling heavy or sharp objects in wet environments

### KRYTECH 395



Lasting chemical protection and high cut protection combined

### EXONIT 853



High cut protection combining shock absorption on the back, comfort thanks to palm pads and dexterity

Liner  
Seamless knitted textile support in composite and HDPE fibres

Gauge 10

Coating  
Latex palm and fingers/Non-slip embossed

Cuff  
Knitted wrist

Size 7 8 9 10

Length  
9-10.25 in 23-26 cm

Liner  
Cotton textile support

Coating  
Nitrile between internal and external finish

Size 8 9 10

Length  
32 cm

Thickness  
12.5 in 32 cm

Liner  
Seamless knitted textile support

Gauge 13

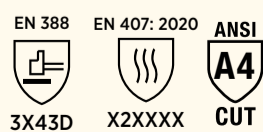
Coating  
3/4 Grip & Proof nitrile coating  
Double layer coating:  
Smooth nitrile - Sandy Nitrile  
TPR full protection pad on back-of-hands

Cuff  
Knitted wrist

Size 9 10 11

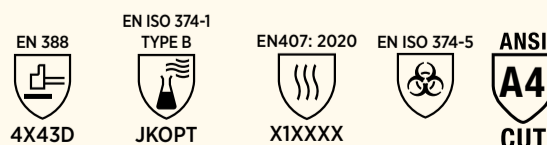
Length 10-11 in 25.5-28.5 cm

CAT 2



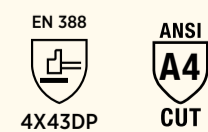
ISO 13997: 19.8N

CAT 3



ISO 13997: 20.4N

CAT 2



ISO 13997: 21.5 N



# THERMAL PROTECTION

The Mapa Professional thermal protective glove range provides excellent comfort and protection to hands whenever work situations require thermal protection in a hot or cold environment.



## HOW CAN YOU REFINE YOUR CHOICE?

### 1 TEMPERATURE

Depending on the temperature of the objects to be handled.

- Temperature - 10°C
- Temperature up to 150°C
- Temperature above 150°C

### 2 ENVIRONMENT

Depending on the environment in which you are working.

- wet environments
- dry environments
- moderately oily environments
- chemical environments

### 3 USAGE DURATION

In cold settings, the duration depends on the intrinsic quality of the coating material. In hot settings, the duration depends on the contact time with the part at a given temperature.

- |                               |                           |
|-------------------------------|---------------------------|
| <b>SERVICE LIFE (COLD)</b>    | <b>CONTACT TIME (HOT)</b> |
| long service life             | short contact             |
| high-performance service life | prolonged contact         |

TEMPERATURE 14°F (-10°C)		TEMPERATURE up to 300°F (150°C)			TEMPERATURE above 300°F (150°C)																															
wet ENVIRONMENTS	wet dry moderately oily ENVIRONMENTS	dry moderately oily ENVIRONMENTS	wet chemical moderately oily ENVIRONMENTS	wet chemical moderately oily ENVIRONMENTS	wet chemical moderately oily ENVIRONMENTS	wet chemical moderately oily ENVIRONMENTS																														
long SERVICE LIFE	high-performance SERVICE LIFE	CONTACT TIME short-term	CONTACT TIME prolonged	CONTACT TIME prolonged	CONTACT TIME short-term	CONTACT TIME short-term																														
<table border="1"> <tr> <td>176°F/80°C</td> <td>70s</td> </tr> <tr> <td>212°F/100°C</td> <td>30s</td> </tr> <tr> <td>257°F/125°C</td> <td>20s</td> </tr> </table>	176°F/80°C	70s	212°F/100°C	30s	257°F/125°C	20s	<table border="1"> <tr> <td>176°F/80°C</td> <td>1min50s</td> </tr> <tr> <td>212°F/100°C</td> <td>1min</td> </tr> <tr> <td>257°F/125°C</td> <td>38s</td> </tr> </table>	176°F/80°C	1min50s	212°F/100°C	1min	257°F/125°C	38s	<table border="1"> <tr> <td>176°F/80°C</td> <td>1min50s</td> </tr> <tr> <td>212°F/100°C</td> <td>1min</td> </tr> <tr> <td>257°F/125°C</td> <td>38s</td> </tr> </table>	176°F/80°C	1min50s	212°F/100°C	1min	257°F/125°C	38s	<table border="1"> <tr> <td>176°F/80°C</td> <td>37s</td> </tr> <tr> <td>212°F/100°C</td> <td>16s</td> </tr> <tr> <td>257°F/125°C</td> <td>12s</td> </tr> </table>	176°F/80°C	37s	212°F/100°C	16s	257°F/125°C	12s	<table border="1"> <tr> <td>176°F/80°C</td> <td>37s</td> </tr> <tr> <td>212°F/100°C</td> <td>16s</td> </tr> <tr> <td>257°F/125°C</td> <td>12s</td> </tr> </table>		176°F/80°C	37s	212°F/100°C	16s	257°F/125°C	12s	
176°F/80°C	70s																																			
212°F/100°C	30s																																			
257°F/125°C	20s																																			
176°F/80°C	1min50s																																			
212°F/100°C	1min																																			
257°F/125°C	38s																																			
176°F/80°C	1min50s																																			
212°F/100°C	1min																																			
257°F/125°C	38s																																			
176°F/80°C	37s																																			
212°F/100°C	16s																																			
257°F/125°C	12s																																			
176°F/80°C	37s																																			
212°F/100°C	16s																																			
257°F/125°C	12s																																			
<p><b>TEMPICE 780</b></p> <p>Thermal insulation 100% sealed for protecting against intense contact cold</p> <p>Internal finish Jersey textile support lined with a woollen sleeve</p> <p>External finish Pebbled PVC coating</p> <p>Size 9 10</p> <p>Length 12 in 30 cm</p>	<p><b>TEMPICE 700</b></p> <p>Dexterity and comfort for optimised thermal protection and durability</p> <p>Internal finish Double seamless knitted textile support</p> <p>Gauge 10 for internal seamless Gauge 15 for external seamless</p> <p>External finish 3/4 smooth nitrile coating with sandy nitrile on the palm and fingers</p> <p>Cuff Knitted wrist</p> <p>Size 7 8 9 10</p> <p>Length 9.5-10.5 in 24-27 cm</p> <p>Washable x5</p>	<p><b>TEMPDEX 710</b></p> <p>High dexterity and thermal protection</p> <p>Internal finish Seamless knitted textile support</p> <p>Gauge 13</p> <p>External finish Nitrile coating and dot embossing on palm and finger</p> <p>Cuff Knitted wrist</p> <p>Size 7 9 11</p> <p>Length 9.5-11.5 in 23-27 cm</p>	<p><b>TEMPDEX 720</b></p> <p>Dexterity and resistance to cuts for optimised thermal protection</p> <p>Internal finish Knitted seamless textile support made from aramid fibres</p> <p>Gauge 10</p> <p>External finish Nitrile coating and dot embossing on palm and finger</p> <p>Cuff Knitted wrist</p> <p>Size 7 9 11</p> <p>Length 9.5-11 24-28 cm</p>	<p><b>TEMPDEX 745</b></p> <p>Dexterity and resistance to cuts for optimised thermal protection</p> <p>Internal finish Knitted seamless textile support made from aramid fibers</p> <p>Gauge 10</p> <p>External finish Nitrile coating and dot embossing on palm and finger</p> <p>Cuff Knitted wrist</p> <p>Size 7 9 11</p> <p>Length 9.5-11 in 24-28 cm</p>	<p><b>TEMPCOOK 476</b></p> <p>Hygienic with high-temperature thermal protection 100% liquid-proof</p> <p>Internal finish Knitted thermal protection</p> <p>External finish Non-slip embossed Nitrile coating</p> <p>Size 7(S) 9(M) 10(L)</p> <p>Length 17.5 in 45 cm</p> <p>(available upon request)</p>	<p><b>TEMPTEC 332/NL517</b></p> <p>Effective thermal insulation and multi-purpose chemical resistance</p> <p>Internal finish Knitted thermal protection</p> <p>External finish Pebbled Polychloroprene (neoprene) coating</p> <p>Size 8 9 10</p> <p>Length TempTec 332: 14 in 35.5 cm TempTec NL517: 17 in 43 cm</p>																														
<p>CAT 3</p> <p>EN 388 3221X</p> <p>EN ISO 374-1 TYPE B KPT</p> <p>EN 511 121</p>	<p>CAT 2</p> <p>EN 388 3222X</p> <p>EN 511 02X</p> <p>ANSI A2 CUT</p>	<p>CAT 2</p> <p>EN 388 4111X</p> <p>EN 407: 2020 X1XXXX</p> <p>ANSI A2 CUT</p>	<p>CAT 2</p> <p>EN 388 4343B</p> <p>EN 407: 2020 X2XXXX</p> <p>EN ISO 13997: 7N</p> <p>ANSI A2 CUT</p>	<p>CAT 3</p> <p>EN 388 4543E</p> <p>EN 407: 2020 X2XXXX</p> <p>ISO 13997: 23.4N (2339g)</p> <p>ANSI A5 CUT</p>	<p>CAT 3</p> <p>EN 388 4443D</p> <p>EN 511 111</p> <p>EN 407: 2020 X2XXXX</p> <p>EN ISO 374-1 TYPE A AFGJOT</p> <p>EN ISO 374-5</p> <p>ANSI A4 CUT</p>	<p>CAT 3</p> <p>EN 388 2212X</p> <p>EN 511 111</p> <p>EN ISO 374-1 TYPE A ACLMNS</p> <p>EN 407: 2020 X2XXXX</p>																														



# CRITICAL ENVIRONMENT PROTECTION

To ensure the protection of both operators and the products they handle, the Mapa Professional ranges of gloves were designed to perfectly fulfill the requirements of high-tech production.

Created with innovative, highly technical processes and subject to inspection at every stage of their design and packaging, these gloves satisfy all the quality criteria necessary for work in controlled environments.



## QUALITY GUARANTEES AT EVERY STAGE OF PRODUCTION

- Mapa Professional uses its own post-manufacturing cleaning process and clean rooms to maintain a level of product and packaging quality that meets requirements for cleanliness and sterility.
- All manufacturing sites have ISO 9002 certification.
- The levels of glove cleanliness are tested periodically to ensure that the production quality of these gloves intended for use in critical environments complies with established specifications.
- Each chemical protection glove is tested using appropriate methods to detect any sealing defects so as to maintain operator safety.
- The chemical resistance checks comply with ASTM standards and EN 374-3, providing users with the information they need to choose a suitable glove for a given application.

## YOUR PRIORITIES ARE OUR PRIORITIES

- improving user effectiveness, productivity and safety by designing gloves that are ever-more effective and safe to use,
- increasing production yields by reducing the amount of contaminants in products.

## CONTROLLED ENVIRONMENT (CLEAN ROOM)

ENVIRONMENT

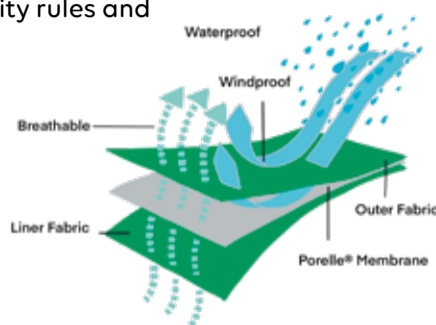
TRILITES 984CP		ADVANTECH 519		ADVANTECH 517 (TRIONIC E194BPK)		
Reinforced mechanical resistance for short duration operations		The chemical protection of nitrile combined with excellent mechanical resistance		An exclusive, comfortable tripolymer for optimal mechanical and chemical resistance		
Material Tripolymer (latex, Neoprene and nitrile)		Material nitrile		Material Mixed formulas (latex, Neoprene and nitrile)		
Internal finish Chlorinated External finish Embossed grip Size 6 7 8 9 Length 11.5 in 29 cm Thickness 6 mil 0.15 mm		Internal finish Chlorinated External finish Chlorinated Size 7 8 9 10 Length 33 cm Thickness 13 in 33 cm 111 mil 0.30 mm		<b>ROLLPRUF 0716/0726</b> Internal finish Chlorinated External finish Pebbled fingertips Size 7.5 8 8.5 9 Length 12 in 30 cm Thickness 8 mil 0.20 mm		
CAT 3		CAT 3		CAT 3		
EN ISO 374-1:2016 TYPE B  EN ISO 374-5:2016 		EN 388  EN ISO 374-1 TYPE B  EN ISO 374-5 		EN ISO 374-1 TYPE B  EN ISO 374-5  EN 421 		
EN 388  EN ISO 374-1 TYPE B 		EN 388  EN ISO 374-1 TYPE B  EN ISO 374-5 				



# CRYOGENIC PROTECTION

Specialized range of gloves and accessories to protect operators in presence of liquid nitrogen and other cryogenic gases. PPE (Personal Protective Equipment) manufactured with select technical materials following strict quality rules and subject to rigorous tests of strength and durability.

The main function of the breathable Porelle® membrane is to ensure waterproofness in use, while keeping the user dry and comfortable.



## MAIN FEATURES OF A CRYOGENIC PROTECTIVE GLOVES :

- Ability to protect against cold contact for extended periods of time.
- Waterproof insulation from cryogenic liquids, without compromising flexibility and dexterity.
- Low temperature and cryogenic gas will not cause damage to the glove material.

## UNIQUE CONSTRUCTION

- Cryogenic waterproof glove made of a special elastic and laminated blue fabric. Internal glove and cuff insulation polyester multilayer fleece (410g/m<sup>2</sup>) and polyolefin Porelle® membrane, 15 cm (6») cuff with NYLON®
- Stitching. Overall length of the glove 40 cm (16 in).
- Suitable for applications handling liquid nitrogen and other cryogenic gases to protect from cold contact and prevent burns from liquid gas leakage.

## CRYOGENIC PROTECTIVE GLOVES

### CRYOKIT 400



Protection from exposure to very low temperatures

### CRYOKIT 550



The safe use of cryogenic liquified gas depends largely on the knowledge of their properties and compliance with simple common sense precautions.

### GENERAL INFORMATION

General precautions are related to the common characteristics of all cryogenic liquified gas:

- Extremely low temperatures
- Evaporation of large volumes of gas from small amounts of liquid
- Tendency to accumulate cold vapor in the lower strata of the environment.

Specific precautions are necessary for certain gases: oxygen, i.e., prevent contact with substances that may react violently. It is very important that users have a thorough understanding of the instructions for use of devices and equipment, along with specific precautions suggested by the gas supplier.

### COMMON HAZARDS

Exposure of the skin to very cold temperatures can cause damage similar to burns, with prolonged exposure frostbite can occur. Inhalation of vapors at low temperature can damage the lungs, cryogenic liquids or vapors can cause eye damage. In contact with cold surfaces (pipes or non-insulated vessels), the skin may adhere very firmly due to the freezing of moisture and tear when you try to remove. Excessive concentrations of oxygen increase the danger of fire and excessive concentrations of other gases, reduces the percentage of oxygen in the environment, creating the danger of asphyxiation.

### PRECAUTIONS WEAR SUITABLE PROTECTIVE CLOTHING AT LOW TEMPERATURES.

Protect your eyes with a face shield or goggles equipped with lateral protection. Always wear gloves made by nonabsorbent materials to handle objects that are or have been in contact with the liquid. The gloves should be comfortable, but fit loosely so they can be removed and discarded quickly in the event of accidental liquid penetration. The use of apron and overshoes are recommended in the decanting (transfer) operation.

### FIRST AID IN CASE OF ACCIDENT TO EXPOSURE TO COLD

Wash affected areas with plenty of warm water and avoid rubbing and removing clothing, do not expose area to direct heat. If there are symptoms of frostbite, injury or extensive damage to the eyes get immediate medical assistance. Until medical assistance arrives protect the affected areas with soft, dry, clean & loosely wrapped material, avoid restricting circulation, keep the patient warm and still, and no alcoholic beverages.

Material  
Special elastic and laminated blue fabric

Internal finish  
Multilayer fleece (410g/m<sup>2</sup>) and polyolefin Porelle® membrane

External finish  
Laminated fabric

Size  
6 7 8 9 10 11

Length  
16 in 41 cm

CAT 3

Internal finish  
Multilayer fleece (410g/m<sup>2</sup>) and polyolefin Porelle® membrane

External finish  
Laminated fabric

Size  
8 9 10 11

Length  
22 in 56 cm

CAT 3



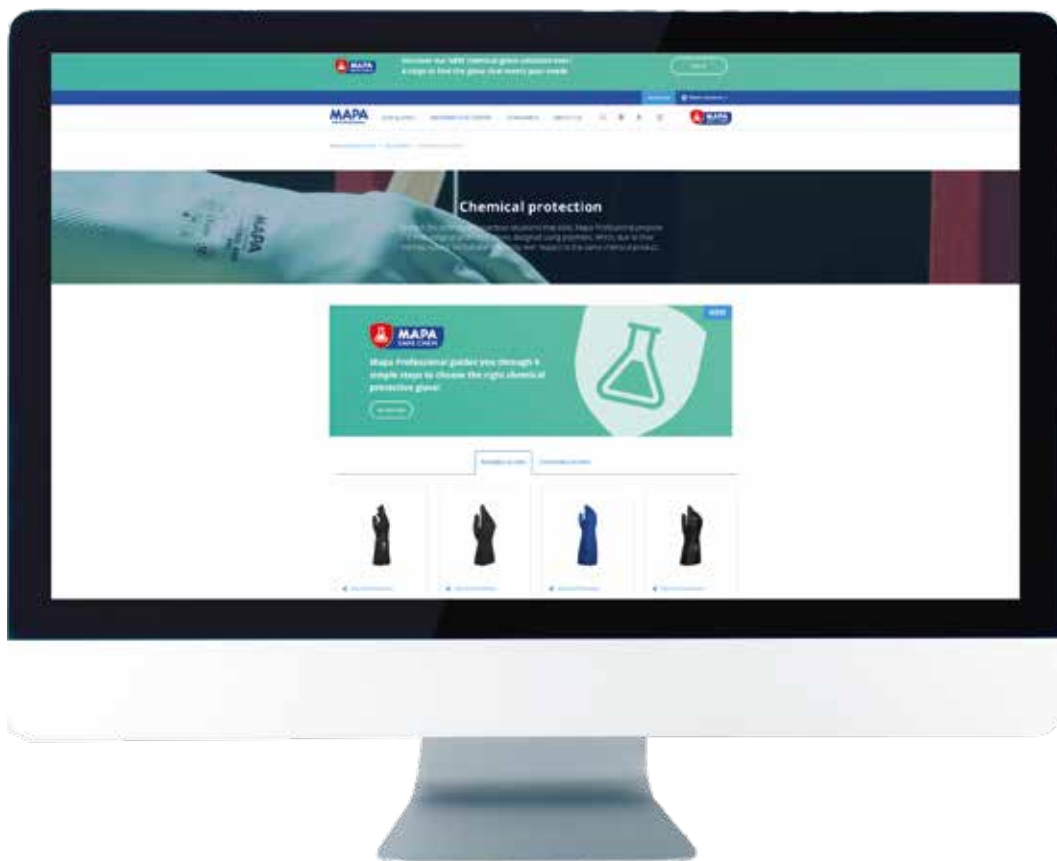
**CE 0498**  
USO CRIOGENICO  
CRYOGENIC USE  
WATERPROOF

# Notes

A series of horizontal dotted lines for writing notes.

# For more information

[www.mapa-pro.us](http://www.mapa-pro.us)



## ► Contact forms

Get in touch easily with our commercial and technical teams

## ► Selection guides

for each segment to help you choose the right glove

## ► An advanced search engine

to find a product based on your own criteria, with a database continuously updated

## ► A tool to help you locate

your nearest Mapa Professional distributor



## ► A chemical glove selection tool

with a clearer recommendation suitable with your needs

And, of course, news, downloadable documents, a technical glossary, an FAQ section, etc.

Find all our documentation on your smartphone !



### MAPA PROFESSIONAL

DEFENSE OUEST

420, rue d'Estienne d'Orves - 92705 Colombes Cedex

Tel.: +33 (0)1 49 64 22 00 - Fax : +33 (0)1 49 64 24 29

[www.mapa-pro.com](http://www.mapa-pro.com)

**MAPA**<sup>®</sup>  
PROFESSIONAL

The future is  
in our hands