CATALOGUE **2021**

PROTECTIVE GLOVES

A solution
for every hand
that works

MAPA®
PROFESSIONAL

A SOLUTION FOR EVERY HAND THAT WORKS

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
(60 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 10 Chemical protection
PAGE 28 Mechanical protection
PAGE 44 Thermal protection
PAGE 46 Food expert range
PAGE 54 Critical environment protection

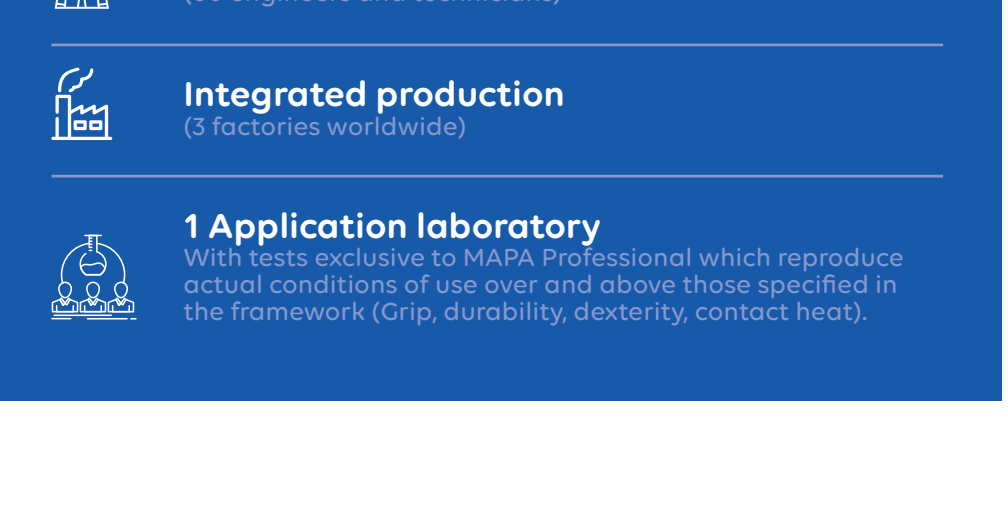
Step 2: Define the type of glove

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.



How to read the pictograms?

MANUFACTURE
Fitting, Assembling a part
Paint spraying
Handling chemical compounds
Manufacturing composites
Handling chemical drums

AERONAUTICS
Work with composite materials (resins)

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

HEALTH
Pharmaceutical preparation
Medical manufacturing
Research
Hospitals and clinics

FOOD AND DRINK INDUSTRY
Food handling and preparations

CONSTRUCTION INDUSTRY
Handling construction materials, glazing

MARITIME
Cultivation of fishing products

AGRICULTURE
Handling of diluted and concentrated pesticides
Re-entry tasks

ENERGY
Nuclear, wind turbine, petrochemical industries

CLEANING
Handling of detergents
Industrial cleaning
Small general maintenance jobs

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 the users.
That means that PPE must protect up to the required levels without compromising the user's health.
Harmonized 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 for the risks for which the product is intended to protect.
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 at this same date.

Regulation (EU) 2016/425 & 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 the manufacturers or importers and conformity procedures to affix the CE marking on PPE.
Directive 89/656/EEC is dedicated to the professional users of PPE. It lays down the responsibilities of the employers to supply and ensure a safe use of adequate CE-marked PPE by their employees.

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 & 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

MECHANICAL HAZARDS
EN 388

4 3 4 3 C (P)

- Protection against impacts (P)
- **From A to F** ISO 13997 cut resistance
- **From 0 to 4** Puncture resistance
- **From 0 to 4** Tear resistance
- **From 0 to 5** Couptest cut resistance
- **From 0 to 4** Abrasion resistance

CHEMICAL & MICRO-ORGANISMS PROTECTION

CHEMICAL PROTECTION
EN ISO 374-1

EN ISO 374-1 / TYPE A
U V W X Y Z
Resistance to penetration EN 374-2
Breakthrough time
≥ 30 min
for at least
6 chemicals
on the list
(EN 16523-1)

EN ISO 374-1 / TYPE B
X Y Z
Resistance to penetration EN 374-2
Breakthrough time
≥ 30 min
for at least
3 chemicals
on the list
(EN 16523-1)

EN ISO 374-1 / TYPE C
Resistance to penetration EN 374-2
Breakthrough time
≥ 10 min
for at least
1 chemical
on the new list
(EN 16523-1)

Degradation test according to EN374-4 is undertaken without performance level requirement

LETTER CODE

A	Methanol	**G**	Diethylamine	**M**	Nitric Acid 65 %
B	Acetone	**H**	Tetrahydrofuran	**N**	Acetic Acid 99%
C	Acetonitrile	**I**	Ethyl acetate	**O**	Ammonia 25%
D	Dichloromethane	**J**	n-Heptane	**P**	Hydrogen Peroxide 30%
E	Carbon disulphide	**K**	Sodium hydroxide 40%	**S**	Hydrogen Fluoride 40%
F	Toluene	**L**	Sulphuric acid 96%	**T**	Formaldehyde 37%

MICRO-ORGANISMS PROTECTION EN ISO 374-5

The gloves must pass the penetration resistance test EN 374-2.

EN ISO 374-5
For gloves protecting against bacteria and fungi.

If virus protection is claimed, glove has to pass ISO 16604 method B (Phi-X174 bacteriophage)

EN ISO 374-5
VIRUS
For gloves protecting against bacteria, fungi and viruses.

OTHERS

WITH NO PERFORMANCE LEVELS

PROTECTION AGAINST PESTICIDES
ISO 18889

- G1 ISO 18889 — Resistance to diluted pesticides/no mechanical risk
- G2 ISO 18889 — Resistance to diluted & concentrated pesticides/ mechanical risk
- GR ISO 18889 — Re-entry tasks

PROTECTION AGAINST STATIC ELECTRICITY
EN 16350

THERMAL PROTECTION

COLD HAZARD
EN 511

3 2 1

- **0 or 1** Water permeability
- **From 0 to 4** Contact cold resistance
- **From 0 to 4** Convective cold resistance

HEAT AND FIRE
EN 407

X 2 X X X X

- **From 0 to 4** Resistance to large quantities of molten metal
- **From 0 to 4** Resistance to small drops of molten metal
- **From 0 to 4** Radiant heat resistance
- **From 0 to 4** Convective heat resistance
- **From 0 to 4** Contact heat resistance
- **From 0 to 4** Limited flame spread

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

Standards informations

PROTECTION AGAINST PESTICIDES

ISO 18889: 2019 STANDARD

Protective gloves for pesticide operators and re-entry workers

BACKGROUND

Workers in farm & 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	
G1 gloves ISO 18889 G1 Handling **diluted** pesticides No mechanical risk	G2 gloves ISO 18889 G2 Handling **diluted** or **concentrated** pesticides Minimum mechanical resistance requirement	GR gloves ISO 18889 GR Re-entry worker who is in contact with **dry** and **partially dry** pesticide residues **that remain on the plant** after pesticide application Mechanical properties that are required for several re-entry tasks Breathable material in the back of the hand provides comfort
▼	▼	▼
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: $<10^8$ Ω at 25% relative humidity **The tests must be performed on 5 samples which must all pass the limit of vertical resistance*	EN 1149-2	Introduced in EN ISO 21420: 2020 NEW EN 16350
Protection of Electronic devices from **E**lectro**S**tatic **D**ischarge (ESD)	No standard	No test method	No pictogram

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 article for private use (oven gloves, potholders, etc.) in the new PPE regulation (EU) 2016/425.
The performance levels remain unchanged!

EN 407 EN 407

Protective gloves and other hand protective equipments against thermal risks

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	The performance levels are based on the **lowest value** of test results
		No mechanical restistance requirement	Introduction of a minimum mechanical resistance: **minimum level 1 (10N)** for tear resistance - EN 388
GLOVES **NOT** RESISTANT TO FLAME			
EN 407 X2XXXX	▶ NEW EN 407 X2XXXX	Minimum length required by EN 420: 2004	Higher minimum requirement of **length** for gloves that offer protection from **metal projection**
		Issue with flame test with leather gloves	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 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		NEW GLOVE SIZING	NEW GLOVE MARKING	NEW INSTRUCTIONS OF 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	✓ For ATEX area **new pictogram** EN 16350 The electrostatic properties shall be tested according to the EN 16350 standard (test method EN1149-2)	✓ For other electrostatic properties **no pictogram** EN 1149-1 or EN 1149-3 test methods should be used	✓ No more minimum length required Sizes of gloves are defined with respect to the sizes of the hands they are to fit!	For a better manufacturing batch traceability, gloves shall be marked with: ✓ **Manufacturing date** at least the month and year ✓ If applicable, **obsolescence date** behind **the pictogram**	Donning, doffing & glove adjustment instructions Comfort & hygiene Protection from contamination Natural rubber content warning No more mandatory* on instructions of use: list of substances that can cause allergies (other than rubber) **on requist*

UNDERSTAND THE SPECIAL FEATURES OF A GLOVE TO IMPROVE 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
Fits to the hand well and protects the wrist.

Straight cuff
Better ventilation of the hand

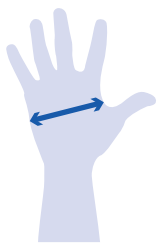
Rolled cuff
Increased resistance to tearing when putting gloves on

Scalloped cut
Increased service life of 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.



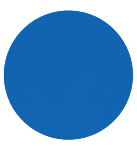
Glove thickness
This influences the user's dexterity and the performance of the glove.
Varies between 0.1 and 2.5 mm.

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.

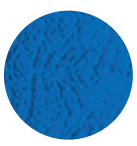
A number of external finishes according to your needs



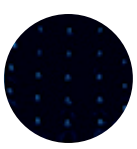
Smooth
Does not mark the handled objects

Non-slip embossing
Excellent grip in oily environments

Pebbled
Good grip and minimal glove fouling



Reinforced grip
Excellent grip in wet environment



Dot embossing
Improved thermal insulation

MAPA TECHNOLOGIES
(SEE NEXT PAGE)

GRIP & PROOF TECHNOLOGY

Excellent grip in oily environments combined with liquidproof protection

RESICOMFORT TECHNOLOGY

Comfort and allows hand to breathe without compromising durability

The different types of internal finish

Powdered
Makes it easier to put gloves on and take them off, without having to increase the thickness of the glove.

Chlorinated/Easy donning treatment
Makes it easier to put the gloves on and take them off 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 absorption of perspiration.

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 absorption of perspiration.

Polyamide
Optimised dexterity (fine, seamless).

Para-aramid
Cutting and heat resistance.

High density polyethylene
Cut-resistance and optimised dexterity.

UNDERSTANDING THE SPECIAL FEATURES OF A GLOVE TO IMPROVE CHOICE

GRIP & PROOF TECHNOLOGY

Our **GRIP&PROOF** coating technology has the following benefits for users handling **greasy** or **oily** parts:

SKIN PROTECTION

- **Sealed at strategic points**
- **Protects from often highly irritant oils**
- **Reduces the risk eczema and dermatitis**

GRIP

- **Excellent grip when handling oily parts with or without a cutting risk**
- **Reduction in risk of objects falling**
- **Reduction in muscle fatigue and risk of RSI (Repetitive Strain Injury)**
- **Ensures better productivity**

RESISTANCE

- **Usage prolonged due to a very durable coating**
- **Cleanliness increased by sealing**
- **Optimisation of expenses**

+ Sealed at strategic points
+ Protects from often highly irritant oils
+ Reduces the risk eczema and dermatitis

Through its expertise and reliable usage tests, Mapa Professional has designed a range of gloves including the GRIP&PROOF technology which combines **sealing** and **grip** with or without cutting for **oily** or **greasy** environments. This technology can be found in our **ULTRANE** and **KRYTECH** ranges

RESICOMFORT TECHNOLOGY

Our **RESICOMFORT** coating technology offers the following benefits for **precise handling** operations in a **dry environment:**

COMFORT AND BREATHABILITY

- **Excellent dexterity at the fingertips**
- **Feels like a second skin**
- **Suppleness and Flexibility**
- **Reduction in perspiration**

RESISTANCE

- **Prolonged use guaranteed by our exclusive process**
- **Resistance to rubbing through the highly durable coating**
- **Optimisation of expenses**

+ No DMF
+ Oekotex
+ Silicon-free
+ Guaranteed without painting refusal
+ Washable

Thanks to our expertise and reliable usage tests, Mapa Professional has designed a range of gloves with or without cutting protection for dry environments, including the RESICOMFORT technology which combines **comfort** and **breathability** without compromising on strength and durability. This technology can be found in our **ULTRANE** and **KRYTECH** ranges

NEW PRODUCTS

Products specially designed to meet chemical, handling and cut protection needs.

VITAL 185

CHEMICAL PROTECTION TYPE B

Precision dexterity in non-aggressive environments
Colour-coding to increase safety

See page 15

VITAL 186

CHEMICAL PROTECTION TYPE B

Precision dexterity in non-aggressive environments
Colour-coding to increase safety

See page 15

ULTRANE 524

Protection of electronic device from ElectroStatic Discharge (ESD)

See page 31

ULTRANE 648

Optimal dexterity and sensitivity for light protection. Suitable for touch screens

See page 31

ULTRANE 527

Detachable fingers glove to avoid hand risk injuries. MAPA Patented Comfort suppleness and high dexterity without any compromise on breathability and durability

See page 33

ULTRANE 544

Protection of electronic device from ElectroStatic Discharge (ESD)

See page 33

ULTRANE 641

Comfort suppleness and high dexterity without any compromise on breathability and durability

See page 33

KRYTECH 645

CUT PROTECTION LEVEL E

Comfort suppleness and hight dexterity without any compromise on cut protection, breathability and durability.
Suitable for Touch Screens

See page 43

KRYTECH 643

CUT PROTECTION LEVEL C

Comfort suppleness and high dexterity without any compromise on cut protection, breathability and durability.
Suitable for Touch Screens

See page 41

KRYTECH 810

CUT PROTECTION LEVEL C

A cut protection with a maximum comfort.
A seamless plaited glove for very good fit, dexterity and flexibility

See page 41

KRYTECH 615

CUT PROTECTION LEVEL D

High cut protection with a maximum comfort
A seamless plaited glove for very good fit, dexterity and flexibility

See page 43

KRYTECH 644

CUT PROTECTION LEVEL D

Comfort suppleness and hight dexterity without any compromise on cut protection, breathability and durability.
Suitable for Touch Screens

See page 43

KRYTECH 642

CUT PROTECTION LEVEL B

Comfort suppleness and hight dexterity without any compromise on cut protection, breathability and durability.
Suitable for Touch Screens

See page 39

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.

Refer to our dynamic database, which is constantly updated, and download the chemical resistance tables for our gloves.
www.mapa-pro.com

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.).

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. next pages ▶

YOU ARE HANDLING	CAS	EN374	PVC	NATURAL LATEX	NITRILE	POLY-CHLOROPRENE	BUTYL	FLUORO-ELASTOMER
			Common polymers*				Specific polymers**	
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	•	•	••		•••	••
PEROXYDE (hydrogen peroxide 30%)	7722-84-1	P	•••	•••	•••	•••	•••	•••
HYDROFLUORIC ACID (hydrogen fluoride 40%)	7664-39-3	S		•••		•••	•••	••
ALDEHYDE (formaldehyde 37%)	50-00-0	T	•••	•••	•••	•••	•••	•••

RECOMMENDATION BY MAPA PROFESSIONAL • **Light** protection •• **Strong** protection ••• **Optimal** protection

* 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.

	PVC	NATURAL LATEX	NITRILE	POLY-CHLOROPRENE	BUTYL	FLUORO-ELASTOMER
STRENGTHS	Value for money Mechanical strength	Excellent flexibility Good puncture and tearing resistance Adapted to cold environment	Good puncture and abrasion resistance No risk of protein-related allergies	Good flexibility Good thermal resistance	Excellent chemical resistance Flexible and elastic	High chemical resistance
RESTRICTIONS	Not suitable for handling hot parts	Risk of allergies caused by the proteins in the natural latex	Not recommended for cold environments	Poor mechanical properties	Poor mechanical properties	

CHEMICAL PROTECTION
TELSOL - VITAL 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	MATERIAL NATURAL LATEX		MATERIAL LATEX MIX			
frequent CONTACT	splashes					
continuous WEAR	short WEAR		intermittent WEAR			
TELSOL 361	**TELSOL 351**	**VITAL 174**	**VITAL 520**	**VITAL 115**	**VITAL 210**	**VITAL 180**
		 VITAL 175 VITAL 177	 VITAL 540	 VITAL 117 VITAL 124 VITAL 185 VITAL 186		 VITAL 181
Long-lasting mechanical protection against low chemical hazards	Comfort, flexibility and mechanical protection for low chemical hazards	Dexterity and flexibility for light aggressive environments	Dexterity and flexibility in light aggressive environments	Precision dexterity in non-aggressive environments Colour-coding to increase safety	The effective response to contact with aggressive detergents	Dexterity and better resistance to oils and greases
Internal finish **Textile support**	Internal finish **Textile support**	**VITAL 174** Internal finish **Easy donning treatment / chlorinated**	**VITAL 520** Internal finish **Powdered**	**VITAL 115** Internal finish **Flocked**	Internal finish **Flocked**	**VITAL 180** Internal finish **Flocked**
External finish **Pebbled**	External finish **Pebbled**	External finish **Pebbled**	External finish **Smooth**	External finish **Non-slip embossing**	External finish **Non-slip embossing**	External finish **Non-slip embossing**
Size **9 10**	Size **8 9 10**	Size **7 8 9**	Size **6 7 8 9**	Size **6 7 8 9**	Size **6 7 8 9**	Size **6 7 8 9 10**
Length **35 cm**	Length **30 cm**	Length **31 cm**	Length **33 cm**	**VITAL 117. 124** Internal finish **Flocked**	Length **32 cm**	Length **30 cm**
Thickness **1.20 mm**	Thickness **1.35 mm**	Thickness **0.45 mm**	**VITAL 540** Internal finish **Powdered**	External finish **Non-slip embossing**	Thickness **0.50 mm**	**VITAL 181** Internal finish **Flocked**
		VITAL 175. 177 Internal finish **Easy donning treatment / chlorinated 177: chlorinated**	External finish **Non-slip grip**	Size **6 7 8 9 10**		External finish **Pebbled**
		External finish **Non-slip embossing**	Size **8 9 10**	**VITAL 185. 186** Internal finish **Flocked**		Size **7 8 9**
		Size **6 7 8 9 10**	Length **31 cm**	External finish **Embossed texture**		Length **31 cm**
		Length **31 cm**	Length **30.5 cm (30 cm - 186)**	Size **6 7 8 9 10**		Thickness **0.40 mm**
		Thickness **0.40 mm**	Thickness **0.40 mm**	Thickness **0.35 mm**		
CAT 3	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3
EN388:2016 **4141X**	EN388:2016 **4121X**	EN388:2016 **0010X**	EN 421 EN ISO 374-5:2016 EN388:2016 **2010X (VITAL 520) 0010X (VITAL 540)**	EN 421 EN ISO 374-5:2016 EN ISO 374-5:2016 **VIRUS** EN ISO 374-1:2016 TYPE B EN388:2016 **KPT 0010X**	EN 421 EN ISO 374-5:2016 EN388:2016 **1110X** EN ISO 374-1:2016 TYPE B **KPS**	EN388:2016 EN ISO 374-5:2016 **1110X** EN ISO 374-1:2016 TYPE B **KPT**
EN ISO 374-1:2016 TYPE B **KMO**	EN ISO 374-5:2016 EN ISO 374-1:2016 TYPE A **KLMNPT**	EN 421 EN ISO 374-1:2016 TYPE B **KPT** EN ISO 374-5: 2016 **VIRUS*** (*VITAL 174 & 175)	EN ISO 374-1:2016 TYPE B **KMP (VITAL 520) KPT (VITAL 540)**			

CHEMICAL PROTECTION
JERSETTE - ALTO 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	MATERIAL LATEX MIX	MATERIAL LATEX
	frequent CONTACT	
intermittent WEAR		continuous WEAR
ALTO 258	**ALTO 405**	**ALTO 415**	**JERSETTE 307**	**JERSETTE 300**
				
Strong protection against aggressive detergents	**Precision dexterity in aggressive environments**	**Fine touch for light chemical protection**	**Exceptional comfort and precision dexterity in light aggressive environments**	**Maximum comfort for long-term work in aggressive environments**
Internal finish **Flocked**	Internal finish **Flocked**	Internal finish **Flocked**	Internal finish **Textile support**	**JERSETTE 300**: Internal finish **Textile support**; External finish **Smooth**; Size **5 6 7 8 9 10**; Length **29-33 cm** — **JERSETTE 301**: Internal finish **Textile support**; External finish **Pebbled**; Size **5 6 7 8 9 10**; Length **29-33 cm**
External finish **Non-slip embossing**	External finish **Non-slip embossing**	External finish **Non-slip embossing**	External finish **Pebbled**	Thickness **1.15 mm**
Size **6 7 8 9 10**	Size **6 7 8 9 10**	Size **6 7 8 9 10 11**	Size **6 7 8 9**	
Length **32 cm**	Length **33 cm**	Length **32 cm**	Length **31 cm**	
Thickness **0.60 mm**	Thickness **0.70 mm**	Thickness **0.60 mm**	Thickness **0.75 mm**	
CAT 3	CAT 3	CAT 3	CAT 3	CAT 3
EN388:2016 **1110X**; EN ISO 374-1:2016 TYPE B **KPS**; EN ISO 374-5:2016	EN388:2016 **2110X**; EN ISO 374-1:2016 TYPE B **KMT**; EN ISO 374-5:2016; EN 421	EN388:2016 **1011X**; EN ISO 374-1:2016 TYPE B **KMT**; EN ISO 374-5:2016; EN 421	EN388:2016 **2120X**; EN407 **X1XXXX**	EN388:2016 **2131X**; EN ISO 374-1:2016 TYPE B **KPT**; EN407 **X1XXXX**

CHEMICAL PROTECTION
HARPON - ALTO 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

frequent CONTACT	prolonged CONTACT	
continuous WEAR	short WEAR	intermittent WEAR
HARPON 321	**ALTO 298**	**ALTO 285**
		
Comfort and safety when gripping heavy, rough or slippery objects in highly-aggressive settings	**Good mechanical performance for long-lasting chemical protection**	**Good mechanical performance for long-lasting chemical protection**
HARPON 321 Internal finish **Textile support** External finish **Reinforced grip** Size **6 7 8 9 10** Length **32 cm** **HARPON 325** Internal finish **Textile support** External finish **Reinforced grip** Size **8 9 10** Length **37 cm** Thickness **1.35 mm**	Internal finish **Chlorinated** External finish **Smooth** Size **8 9 10** Length **42 cm** Thickness **1 mm**	Internal finish **Chlorinated** External finish **Reinforced grip** Size **8 9 10** Length **60 cm** Thickness **1 mm**
CAT 3	CAT 3	CAT 3
EN388:2016 **3141X** EN ISO 374-1:2016 TYPE B **KPT** EN407 **X2XXXX**	EN388:2016 **3131X** EN ISO 374-1:2016 TYPE A **AKLMPT** EN ISO 374-5:2016	EN388:2016 **2131X** EN ISO 374-1:2016 TYPE A **ABKMPT** EN ISO 374-5:2016

prolonged CONTACT		
intermittent WEAR		
ALTO 260	**ALTO 299**	
		
A good choice when dexterity and chemical protection is needed for extended wear	**Good mechanical performance for long-lasting chemical protection**	
Internal finish **Chlorinated** External finish **Non-slip embossing** Size **7 8 9 10 11** Length **32 cm** Thickness **0.80 mm**	Internal finish **Flocked** External finish **Non-slip embossing** Size **7 8 9 10** Length **31 cm** Thickness **0.90 mm**	
CAT 3	CAT 3	
EN388:2016 **2120X** EN ISO 374-1:2016 TYPE A **AKLMPT** EN ISO 374-5:2016	EN388:2016 **3121X** EN ISO 374-1:2016 TYPE A **AKLMPT** EN ISO 374-5:2016	

CHEMICAL PROTECTION
ULTRANITRIL 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

splashes	frequent CONTACT		prolonged CONTACT		
short WEAR	intermittent WEAR	ultra-comfort WEAR	short WEAR	inter-mittent WEAR	conti-nuous WEAR
ULTRANITRIL 472	**ULTRANITRIL 487**	**ULTRANITRIL 454**	**ULTRANITRIL 485***	**ULTRANITRIL 492***	**ULTRANITRIL 381***
					
Fingertip precision for light chemical protection and food handling	Fingertip precision for light chemical protection	Precision dexterity in mildly aggressive environments, for those sensitive to natural latex	Good sensitivity for standard chemical protection	Good mechanical resistance and long-lasting chemical protection	Maximum comfort for standard chemical protection
Internal finish **Easy donning treatment** External finish **Pebbled** Size **6 7 8 9 10** Length **31 cm** Thickness **0.20 mm**	Internal finish **Easy donning treatment** External finish **Non-slip embossing** Size **7 8 9 10** Length **32 cm** Thickness **0.28 mm**	Internal finish **Flocked** External finish **Non-slip embossing** Size **6 7 8 9 10** Length **31 cm** Thickness **0.35 mm**	Internal finish **Flocked** External finish **Non-slip embossing** Size **7 8 9 10** Length **31 cm** Thickness **0.34 mm**	Internal finish **Flocked** External finish **Non-slip embossing** **492** Size **6 7 8 9 10 11** Length **32 cm** **491** Size **6 7 8 9 10** Length **37 cm** Thickness **0.38 mm**	Internal finish **Mapa technology Textile support** External finish **Non-slip embossing** Size **7 8 9 10 11** Length **35.5 cm** Thickness **0.95 mm**
CAT 3	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3
EN388:2016 **2101X** EN ISO 374-1:2016 TYPE B **JOT** EN ISO 374-5: 2016 EN421	EN388:2016 **2101X** EN ISO 374-1:2016 TYPE B **JOT** EN ISO 374-5: 2016	EN388:2016 **2000X** EN ISO 374-1:2016 TYPE B **KPT** EN ISO 374-5: 2016	EN388:2016 **3101X** EN ISO 374-1:2016 TYPE B **JKOPT** EN ISO 374-5: 2016 ISO 18889 G2	EN388:2016 **3101X** EN ISO 374-1:2016 TYPE A **AJKOPT** EN ISO 374-5: 2016 ISO 18889 G2 VIRUS	EN388:2016 **3111A** EN ISO 374-1:2016 TYPE A **JKLOPT** EN ISO EN407 374-5: 2016 ISO 18889 G2 X1XXXX

ULTRANITRIL 480*	ULTRANITRIL 493*	ULTRANITRIL 377
		
Ultra-long chemical protection	Ultra-long chemical protection	Comfort and reinforced mechanical resistance for long-lasting chemical protection
Internal finish **Chlorinated** External finish **Non-slip embossing** Size **7 8 9 10** Length **46 cm** Thickness **0.55 mm**	Internal finish **Flocked** External finish **Non-slip embossing** Size **8 9 10 11** Length **39 cm** Thickness **0.55 mm**	Internal finish **Textile support** External finish **Smooth** Size **8 9 10** Length **38 cm** Thickness **1.30 mm**
CAT 3	CAT 3	CAT 3
EN388:2016 **4102X** EN ISO 374-1:2016 TYPE A **AJKOPT** EN ISO 374-5: 2016 ISO 18889 G2	EN388:2016 **4102X** EN ISO 374-1:2016 TYPE A **AJKOPT** EN ISO 374-5: 2016 ISO 18889 G2	EN388:2016 **4122X** EN ISO 374-1:2016 TYPE A **AJKOPT** EN407 X1XXXX

CHEMICAL PROTECTION
ULTRANEO 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
POLYCHLOROPRENE

splashes		frequent CONTACT			prolonged CONTACT	
intermittent WEAR	continuous WEAR	intermittent WEAR	continuous WEAR	ultra-comfort WEAR	short WEAR	continuous WEAR
ULTRANEO 401	**ULTRANEO 340**	**ULTRANEO 420**	**ULTRANEO 341**	**ULTRANEO 382**	**ULTRANEO 407**	**ULTRANEO 339**
						
Tactile sensitivity for light chemical protection	**Comfort with light chemical protection**	**Suppleness and freedom of movement for standard chemical protection**	**Comfort with standard 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 **Textile support**	Internal finish **Mapa technology Textile support**	Internal finish **Chlorinated**	Internal finish **Textile support**
External finish **Non-slip embossing**	External finish **Smooth**	External finish **Non-slip embossing**	External finish **Smooth**	External finish **Non-slip embossing**	External finish **Non-slip embossing**	External finish **Pebbled**
Size **7 8 9 10**	Size **7 8 9 10**	**420** Size **6 7 8 9 10** / **450** Size **7 8 9 10**	Size **8 9 10 11**	Size **6 7 8 9 10**	Size **9 10**	Size **9 10**
Length **31 cm**	Length **38 cm**	**420** Length **31 cm** / **450** Length **41 cm**	Length **38 cm**	Length **35.5 cm**	**407** Length **35.5 cm** / **414** Length **45.5 cm**	Length **35.5 cm**
Thickness **0.55 mm**	Thickness **1.30 mm**	Thickness **0.75 mm**	Thickness **1.45 mm**	Thickness **0.90 mm**	Thickness **0.75 mm**	Thickness **1.35 mm**
CAT 3	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3
EN388:2016 **2110X**	EN388:2016 **2121X**	EN388:2016 **2121X**	EN388:2016 **2121X**	EN388:2016 **2121X**	EN388:2016 **2111X**	EN388:2016 **3121X**
EN ISO 374-1:2016 TYPE A **ALMNST**	EN ISO 374-1:2016 TYPE A **CLMNST**	EN ISO 374-1:2016 TYPE A **ALMNST**	EN ISO 374-1:2016 TYPE A **ACLMNS**	EN ISO 374-1:2016 TYPE A **ALMNST**	EN ISO 374-1:2016 TYPE A **ABCJLMNS**	EN ISO 374-1:2016 TYPE A **ABCJLMNS**
EN ISO 374-5:2016	EN407 **X1XXXX** / EN ISO 374-5:2016	EN ISO 374-5:2016	EN407 **X1XXXX** / EN ISO 374-5:2016	EN407 **X1XXXX** / EN ISO 374-5:2016	EN ISO 374-5:2016	EN407 **X1XXXX**

CHEMICAL PROTECTION
BUTOFLEX - FLUOTECH 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	
short WEAR	ultra-comfort WEAR	short WEAR	continuous WEAR
BUTOFLEX 651	**BUTOFLEX 650**	**FLUOTECH 468**	**FLUOTECH 344**
			
Ultimate specific chemical resistance	**Ultimate specific chemical resistance**	**Tactile sensitivity with wear indicator**	**Comfort and flexibility for extended wear**
External finish **Non-slip embossing**	Internal finish **Mapa technology Textile support**	Internal finish **Chlorinated**	Internal finish **Textile support**
Size **7 8 9 10**	External finish **Non-slip embossing**	External finish **Smooth**	External finish **Smooth**
Length **35 cm**	Size **7 8 9 10 11**	Size **8 9 10**	Size **9 10**
Thickness **0.50 mm**	Length **35 cm**	Length **30 cm**	Length **37 cm**
	Thickness **1.50 mm**	Thickness **0.50 mm**	Thickness **1.50 mm**
CAT 3	CAT 3	CAT 3	CAT 3
EN388:2016 **0010X** EN ISO 374-1:2016 TYPE A **ABCILMNOS** EN ISO 374-5:2016	EN388:2016 **1121X** EN ISO 374-1:2016 TYPE A **ABCILMNOS** EN ISO 374-5:2016	EN388:2016 **3102X** EN ISO 374-1:2016 TYPE A **ADEFGLJMNO** EN ISO 374-5:2016	EN388:2016 **3121X** EN ISO 374-1:2016 TYPE A **ACDEFGJLMN** EN407 **X1XXXX** EN ISO 374-5:2016

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, sturdiness 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 absorption of perspiration.

CHLORINATED
Easy donning and no powder on hands.

EASY DONNING TREATMENT
Makes it easier to put on and take off 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 a response to the unique demands of certain sectors and it enables visual checks by the assignment of 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 PVC/VINYL	POLYMER NATURAL LATEX		
COMFORT NON POWDERED	COMFORT NON POWDERED		COMFORT POWDERED
SOLO 990	**SOLO 998**	**SOLO PLUS 995**	**SOLO 992**
			
The best value for precise movements	**Optimal flexibility and dexterity**	**Optimal flexibility and dexterity**	**Optimal flexibility and dexterity**
External finish **Smooth**	External finish **Smooth with pebbled fingertips**	External finish **Smooth with pebbled fingertips**	External finish **Smooth**
Size **6 7 8 9**	Size **6 7 8 9**	Size **6 7 8 9**	Size **6 7 8 9**
Length **24 cm**	Length **30 cm**	Length **24.5 cm**	Length **24 cm**
Thickness **0.08 mm**	Thickness **0.10 mm**	Thickness **0.10 mm**	Thickness **0.10 mm**
CAT 3	CAT 3	CAT 3	CAT 3
EN ISO 374-1:2016 TYPE C; EN ISO 374-5:2016 VIRUS; ISO 18889 G1	EN ISO 374-1:2016 TYPE C; EN ISO 374-5:2016 VIRUS	EN ISO 374-1:2016 TYPE C; EN ISO 374-5:2016	EN ISO 374-1:2016 TYPE C; EN ISO 374-5:2016

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, sturdiness 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 absorption of perspiration.

CHLORINATED
Easy donning and no powder on hands.

EASY DONNING TREATMENT
Makes it easier to put on and take off gloves, without increasing the thickness and without using powder.
Reduces the allergy risk of natural latex gloves.

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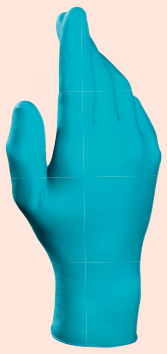
The use of different colours is a response to the unique demands of certain sectors and it enables visual checks by the assignment of a specific colour to each application.

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				POLYMER TRIPOLYMER
COMFORT CHLORINATED			COMFORT POWDERED	COMFORT CHLORINATED
SOLO 967	**SOLO 977**	**SOLO 999**	**SOLO 987**	**SOLO 996**	**TRILITES 994**
					
Excellent dexterity due to the flexibility and fineness of the material. Available in bag and box (Solo BOX 967)	**Ideal protection in chemical industry against splashes**	**Excellent mechanical resistance, ideal in oily environments**	**The perfect protection for light handling in oily environments**	**Excellent mechanical resistance, ideal in oily environments**	**Tripolymer formula for protection against chemical splashes and splatters**
Internal finish **Easy donning treatment** External finish **Smooth with pebbled fingertips** Size **6 7 8 9** Length **24.5 cm** Thickness **0.08 mm**	Internal finish **Chlorinated** External finish **Smooth with pebbled fingertips** Size **6 7 8 9 10** Length **24 cm** Thickness **0.10 mm**	Internal finish **Chlorinated** External finish **Smooth with pebbled fingertips** Size **6 7 8 9** Length **29.5 cm** Thickness **0.10 mm**	Internal finish **Chlorinated** External finish **Smooth with pebbled fingertips** Size **6 7 8 9** Length **24.5 cm** Thickness **0.10 mm**	Internal finish **Powdered** External finish **Smooth with pebbled fingertips** Size **6 7 8 9** Length **24.5 cm** Thickness **0.10 mm**	Internal finish **Chlorinated** External finish **Pebbled** Size **6 7 8 9** Length **25.5 cm** Thickness **0.15 mm**
CAT 3	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3
EN ISO 374-1:2016 TYPE C; EN ISO 374-5:2016	EN ISO 374-1:2016 TYPE B; EN ISO 374-5:2016 VIRUS; ISO 18889 G1; JKT	EN ISO 374-1:2016 TYPE B; EN ISO 374-5:2016 VIRUS; JKT	EN ISO 374-1:2016 TYPE B; EN ISO 374-5:2016 VIRUS; JKT	EN ISO 374-1:2016 TYPE B; EN ISO 374-5:2016; KPT	EN ISO 374-1:2016 TYPE B; EN ISO 374-5:2016; KPT

MECHANICAL PROTECTION
ULTRANE RANGE

The Mapa Professional Handling Protection range meets requirements for comfort and protection of the hands 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 that meets your needs according to your working environment:

- ∅ **dry** and **relatively clean** environments
- **oily** and **very dirty** 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**
	 Touch Screen	 Touch Screen		
Optimal dexterity and sensitivity for light protection	**Optimal dexterity and sensitivity for light protection. Suitable for touch screens**	**Protection of electronic device from ElectroStatic Discharge (ESD)**	**Unbeatable for fingertip precision**	**Optimal comfort, high level of breathability & durability for precision work**
Internal finish **Seamless knitted** **Textile support** **Gauge 13** External finish **Polyurethane coating on palm and fingers** **Knitted wrist** Size **Ultrane 548** 6 7 8 9 10 11 **Ultrane 549** 6 7 8 9 10 Length **22-27 cm**	Internal finish **Seamless Textile support** **Gauge 13** External finish **Ventilated back** **Polyurethane coating on palm and fingers** **Knitted wrist** Size **6 7 8 9 10 11** Length **22-28 cm**	Internal finish **Seamless textile with conductive fiber** **Gauge 18** External finish **Polyurethane coating on palm and fingers** **Knitted wrist** Size **6 7 8 9 10 11** Length **22-27 cm** Washable x1	Internal finish **Seamless knitted** **Textile support** **Gauge 13** External finish **Polyurethane coating on palm and fingers** **Knitted wrist** Size **Ultrane 551** 6 7 8 9 10 11 **Ultrane 550** 6 7 8 9 10 Length **22-27 cm**	Internal finish **Seamless knitted Textile support** **Gauge 13** External finish **Polymer coating with aqueous base on the palm and fingers** **Knitted wrist** Size **6 7 8 9 10 11** Length **22-27 cm** Washable **x1**
CAT 2 EN388:2016 3121X	CAT 2 EN388:2016 3121X	CAT 2 EN388:2016 EN 16350 2X20A	CAT 2 EN388:2016 4131X	CAT 3 EN388:2016 4131X

MECHANICAL PROTECTION
ULTRANE RANGE

The Mapa Professional Handling Protection range meets requirements for comfort and protection of the hands 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 that meets your needs according to your working environment:

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

RESICOMFORT TECHNOLOGY

PATENTED TECHNOLOGY

Detachable fingers glove to avoid hand risk injuries. MAPA Patented Comfort suppleness and high dexterity without any compromise on breathability and durability

Internal finish
Seamless textile with specific knitting technology patented by MAPA PROFESSIONAL
Gauge 15

External finish
Foam nitrile coating with sandy finish on palm and fingers
Knitted wrist

Size
6 7 8 9 10 11

Length
22-27 cm

Washable x1

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH

CAT 2

EN388:2016 **31X1A** | EN407 **X1XXXX**

ULTRANE 541

RESICOMFORT TECHNOLOGY

Comfort suppleness and high dexterity without any compromise on breathability and durability

Internal finish
Seamless knitted textile support in composite and HDPE fibres
Gauge 15

External finish
Foam nitrile coating with sandy finish on palm and fingers
Knitted wrist

Size
6 7 8 9 10 11

Length
22-27 cm

Washable x1

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH

CAT 2

EN388:2016 **4121A** | EN407 **X1XXXX**

ULTRANE 544

Touch Screen

Protection of electronic device from ElectroStatic Discharge (ESD)

Internal finish
Seamless textile with conductive fiber
Gauge 15

External finish
Foam nitrile conductive coating on palm and fingers
Knitted wrist

Size
6 7 8 9 10 11

Length
22-27 cm

Washable x1

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH

CAT 2

EN388:2016 **4121A** | EN 16350

ULTRANE 553

Unbeatable for fingertip precision in dirty environments

Internal finish
Seamless knitted Textile support
Gauge 13

VENDING MACHINE

External finish
Nitrile coating on palm and fingers
Knitted wrist

Size
6 7 8 9 10

Length
22-26 cm

CAT 2

EN388:2016 **4121X**

ULTRANE 500*

GRIP & PROOF TECHNOLOGY

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

Internal finish
Seamless knitted Textile support
Gauge 13

VENDING MACHINE

External finish
Double layer coating: Nitrile Smooth - Sandy Nitrile
Ultrane 500 palm and fingers
Ultrane 525 3/4 coating
Ultrane 526 complete coating

Size
Ultrane 500 6 7 8 9 10 11
Ultrane 525/526 7 8 9 10 11

Length **23-28 cm** Washable x**3**

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH

CAT 3

EN388:2016 **4121A** | ISO 18889 GR

MECHANICAL PROTECTION
TITAN RANGE

HEAVY-DUTY WORK
The TITAN/HARPON range is the shell which protects the hand from heavy objects being handled

- Easy to fit and remove 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 that meets your needs according to 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

dry ENVIRONMENTS

short SERVICE LIFE	long SERVICE LIFE	high-performance SERVICE LIFE
TITAN 833	**TITAN 375**	**TITAN 383**
		
Comfort and dexterity for common tasks	**Protection for all types of light handling activities**	**Protection for all types of light handling activities**
Internal finish **Textile support** External finish **3/4 nitrile coating** Size **7 8 9 10** Length **26.5 cm**	**TITAN 375** Internal finish **Textile support** External finish **Full nitrile coating** **Scalloped cut** Size **6 7 8 9** Length **26 cm** **TITAN 376** Internal finish **Textile support** External finish **Full nitrile coating** **Scalloped cut** Size **8 9** Length **31 cm**	Internal finish **Textile support** External finish **Full nitrile coating** **Knitted cuff** Size **7 8 9 10** Length **26-29 cm**
CAT 2 EN388:2016 **3111X**	CAT 2 EN388:2016 **3111X**	CAT 2 EN388:2016 **3111X**

long SERVICE LIFE	high-performance SERVICE LIFE	
TITAN 397	**TITAN 385**	**TITAN 393**
		
Comfort and dexterity for common handling tasks	**Comfort and durability for heavy-duty handling**	**Optimised comfort and maximum durability for heavy-duty work**
Internal finish **Textile support** External finish **3/4 nitrile coating** **Knitted cuff** Size **6 7 8 9 10** Length **24-31 cm**	Internal finish **Textile support** External finish **Titan 385:** 3/4 nitrile coating **Safety cuff** **Titan 388:** Full nitrile coating **Safety cuff** **Titan 391 :** 3/4 nitrile coating **Knitted cuff** **Titan 392 :** Full nitrile coating **Knitted cuff** Size **Titan 385** 8 9 10 **Titan 388, 391, 392** 8 9 10 Length **Titan 385, 388** 24-26 cm **Titan 391, 392** 24-27 cm	Internal finish **Knitted textile support in brushed cotton** External finish **Full nitrile coating** Size **7 8 9** Length **31 cm**
CAT 2 EN388:2016 **4111X**	CAT 2 EN388:2016 **4111X**	CAT 2 EN388:2016 **4111X** EN407 **X1XXXX**

MECHANICAL PROTECTION
TITAN - HARPON RANGE

HEAVY-DUTY WORK
The TITAN/HARPON range is the shell which protects the hand from heavy objects being handled

- Easy to fit and remove 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 that meets your needs according to 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

wet ENVIRONMENTS		oily and very dirty ENVIRONMENTS
short SERVICE LIFE	long SERVICE LIFE	high-performance SERVICE LIFE
TITAN 328	**HARPON 319** / **HARPON 330**	**TITAN 850**
		GRIP & PROOF TECHNOLOGY 
Flexibility and grip for common handling tasks	**Comfort, reinforced safety and excellent grip in wet environments**	**Shock absorption, durability and comfort for heavy handling work**
Internal finish **Seamless knitted textile support** **Gauge 10** External finish **Natural latex anti-slip coating on palm and fingers** **Embossed, anti-slip texture** **Knitted cuff** Size **8 9 10** Length **24-27 cm**	**HARPON 319** Internal finish **Textile support** External finish **Total coating in natural latex** **Embossed, anti-slip texture** **Knitted cuff** Size **7 8 9** Length **25-27 cm** **HARPON 330** Internal finish **Textile support** External finish **3/4 coating in natural latex** **Embossed, anti-slip texture** **Knitted cuff** Size **6 7 8 9** Length **25-27 cm**	Internal finish **Seamless knitted textile support** **Gauge 13** External finish **Nitrile coating on the palm and fingers** **Double layer coating: Nitrile Smooth - Sandy Nitrile** Size **7 8 9 10 11** Length **23.5-27.5 cm**
CAT 2	CAT 2	CAT 2
EN388:2016 **2142X** · EN407 **X2XXXX**	EN388:2016 **3131X** · EN407 **X1XXXX**	EN388:2016 **4132XP**

MECHANICAL 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 motor-operated sharp object). 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 that meets your needs according to 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
ENVIRONMENT

low
RISK

short SERVICE LIFE		long SERVICE LIFE		high-performance SERVICE LIFE			
KRYTECH 579	**KRYTECH 584**	**KRYTECH 557**	**KRYTECH 558**	**KRYTECH 563**	**KRYTECH 588**	**KRYTECH 642**	
							
Moderate protection for very precise handling in reasonably clean environments		**Moderate protection with crotch reinforcement for precise handling in reasonably clean environments**		**Moderate protection and durability for precise handling in reasonably clean environments**	**Cutting, grip and dexterity for dry and slightly oily environments**	**Comfort suppleness and hight dexterity without any compromise on cut protection, breathability and durability. Suitable for Touch Screens**	
Internal finish **Seamless knitted support manufactured from HDPE fibres** **Gauge 13** External finish **Polyurethane coating on palm and fingers** **Knitted wrist** Size **6 7 8 9 10 11** Length **22-27 cm** Washable **x5**	Internal finish **Seamless knitted support manufactured from HDPE fibres** **Gauge 13** External finish **Polyurethane coating on palm and fingers** **Knitted wrist** Size **6 7 8 9 10 11** Length **27-32 cm** Washable **x5**	Internal finish **Seamless knitted support manufactured from HDPE fibres** **Gauge 13** External finish **Polyurethane coating on palm and fingers** **Knitted wrist** Size **6 7 8 9 10 11** Length **22-27 cm** Washable **x5**	Internal finish **Seamless knitted support manufactured from HDPE fibres** **Gauge 13** External finish **Polyurethane coating on palm and fingers** **Knitted wrist** Size **7 8 9 10 11** Length **26-31 cm** Washable **x5**	Internal finish **Seamless knitted support manufactured from HDPE fibres** **Gauge 13** External finish **Nitrile coating on palm and fingertips** **Knitted wrist** Size **7 8 9 10 11** Length **23-27 cm**	Internal finish **Seamless knitted support manufactured from HDPE fibres** **Gauge 13** External finish **Double layer coating: Nitrile Smooth - Sandy Nitrile** **Knitted wrist** Size **7 8 9 10 11** Length **23-28 cm** Washable **x1**	Internal finish **Seamless knitted textile support in composite and HDPE fibres** **Gauge 15** External finish **Foam nitrile coating with sandy finish on palm and fingers** **Knitted wrist** Size **6 7 8 9 10 11** Length **22-27 cm** Washable x1
CAT 2 EN388:2016 4342B ISO 13997: 5.3 N	CAT 2 EN388:2016 4342B ISO 13997: 5.3 N	CAT 2 EN388:2016 4343B ISO 13997: 5.3 N	CAT 2 EN388:2016 4343B ISO 13997: 5.3 N	CAT 2 EN388:2016 4343B ISO 13997: 6.5 N	CAT 2 EN388:2016 4343B ISO 13997: 5.9 N	CAT 2 EN388:2016 EN407 4X42B X1XXXX ISO 13997: 5,7 N	

MECHANICAL 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 that meets your needs according to 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
ENVIRONMENT

moderate
RISK

short SERVICE LIFE	long SERVICE LIFE	high- performance SERVICE LIFE

KRYTECH 601

An ambidextrous glove with a high dexterity coupled with a good cut performance and comfort

Internal finish
Seamless knitted textile support in composite and HDPE fibres
Gauge 13

External finish
Without coating

Size
7 8 9 10 11

Length
23-28 cm

Washable **x1**

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH
Tested for harmful substances. www.oeko-tex.com/standard100

CAT 2

EN388:2016

1X4XC

ISO 13997: 14.2 N

KRYTECH 610

A cut protection with a maximum comfort. A seamless plaited glove for very good fit, dexterity and flexibility

KRYTECH 610

Internal finish
Seamless knitted textile support in composite and HDPE fibres
Gauge 13

External finish
Polyurethane coating on the palm and fingers
Knitted wrist

Size
6 7 8 9 10 11

Length
24-29 cm

KRYTECH 810

Internal finish
Seamless textile support from HDPE fibres
Gauge 13

External finish
Polyurethane coating on the palm and fingers and nitrile crotch reinforcement between thumb and index
Knitted wrist

Size
6 7 8 9 10 11

Length
23-29 cm

Washable **x3**

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH
Tested for harmful substances. www.oeko-tex.com/standard100

CAT 2

EN388:2016

4X43C

ISO 13997: 14.9 N

KRYTECH 643

RESICOMFORT TECHNOLOGY

Touch Screen

Comfort suppleness and high dexterity without any compromise on cut protection, breathability and durability.
Suitable for Touch Screens

Internal finish
Seamless knitted textile support in composite and HDPE fibres
Gauge 15

External finish
Foam nitrile coating with sandy finish on palm and fingers
Knitted wrist

Size
6 7 8 9 10 11

Length
22-27 cm

Washable x1

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH
Tested for harmful substances. www.oeko-tex.com/standard100

CAT 2

EN388:2016 EN407

4X42C X1XXXX

ISO 13997: 13,5N

MECHANICAL 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 that meets your needs according to 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 ENVIRONMENT

	high RISK	**very high** RISK
long SERVICE LIFE	KRYTECH 586	KRYTECH 615
high-performance SERVICE LIFE	KRYTECH 622, KRYTECH 644, KRYTECH 645	

KRYTECH 586

High-level protection for precise handling in reasonably clean environments

Internal finish
Seamless knitted support manufactured from HDPE fibres
Gauge 13

External finish
Polyurethane on palm and fingers
Knitted wrist

Size
6 7 8 9 10 11

Length
24-30 cm

Washable **x3**

CAT 2

EN388:2016

4X43D

ISO 13997: 18.6 N

KRYTECH 615

High cut protection with a maximum comfort A seamless plaited glove for very good fit, dexterity and flexibility

KRYTECH 615

Internal finish
Seamless knitted textile support in composite and HDPE fibres
Gauge 13

External finish
Polyurethane coating on the palm and fingers
Knitted wrist

Size
6 7 8 9 10 11

Length
23.5-30 cm

KRYTECH 815

Internal finish
Seamless textile support from HDPE fibres
Gauge 13

External finish
Polyurethane coating on the palm and fingers and nitrile crotch reinforcement between thumb and index

Size
6 7 8 9 10 11

Length
23-30 cm

Washable **x3**

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH
Tested for harmful substances. www.oeko-tex.com/standard100

CAT 2

EN388:2016

4X43D

ISO 13997: 20 N

KRYTECH 622

Very high-level cutting protection, comfortable thanks to excellent adjustment and good compatibility with touch screens

Internal finish
Seamless knitted textile support in composite and HDPE fibres
Gauge 13

External finish
Polyurethane coating on the palm and fingers
Knitted wrist

Size
6 7 8 9 10 11

Length
24-29 cm

Washable **x5**

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH
Tested for harmful substances. www.oeko-tex.com/standard100

CAT 2

EN388:2016

4X43E

ISO 13997: 29.5 N

KRYTECH 644

Comfort suppleness and hight dexterity without any compromise on cut protection, breathability and durability. Suitable for Touch Screens

Internal finish
Seamless knitted textile support in composite and HDPE fibres
Gauge 15

External finish
Foam nitrile coating with sandy finish on palm and fingers
Knitted wrist

Size
6 7 8 9 10 11

Length
22-27 cm

Washable x1

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH
Tested for harmful substances. www.oeko-tex.com/standard100

CAT 2

EN388:2016 EN407

4X43D X1XXXX

ISO 13997: 16 N

KRYTECH 645

Comfort suppleness and hight dexterity without any compromise on cut protection, breathability and durability. Suitable for Touch Screens

Internal finish
Seamless knitted textile support in composite and HDPE fibres.
Gauge 15

External finish
Foam nitrile coating with sandy finish on palm and fingers
Knitted wrist

Size
6 7 8 9 10 11

Length
22-27 cm

Washable x1

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH
Tested for harmful substances. www.oeko-tex.com/standard100

CAT 2

EN388:2016 EN407

4X43E X1XXXX

ISO 13997: 29.5 N

MECHANICAL 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 that meets your needs according to 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	moderate RISK	high RISK
high-performance SERVICE LIFE		

KRYTECH 580*	KRYTECH 599*	KRYTECH 600*	KRYTECH 585	KRYTECH 582
GRIP & PROOF TECHNOLOGY	GRIP & PROOF TECHNOLOGY	GRIP & PROOF TECHNOLOGY	GRIP & PROOF TECHNOLOGY	GRIP & PROOF TECHNOLOGY
				
Moderate protection, grip and skin protected for precise handling slightly oily and dirty environments	**Moderate protection against cutting, grip and skin protected for complex handling operations in oily environment**	**Moderate protection against cutting, grip and skin protected for complex handling operations in very oily environment**	**Enhanced safety, comfort and durability with Grip & Proof Technology**	**High-level cutting protection for complex handling operations in oily environment**
Internal finish **Seamless knitted textile support of HDPE fibre** **Gauge 13** External finish **Double layer coating: Nitrile Smooth - Sandy Nitrile** **Knitted wrist** Size **6 7 8 9 10 11** Length **23-28 cm**	Internal finish **Seamless knitted textile support of HDPE fibre** **Gauge 13** External finish **Double layer coating: Nitrile Smooth - Sandy Nitrile** **Knitted wrist** Size **7 8 9 10 11** Length **23-28 cm**	Internal finish **Seamless knitted textile support of HDPE fibre** **Gauge 13** External finish **Double layer coating: Nitrile Smooth - Sandy Nitrile** **Knitted wrist** Size **7 8 9 10** Length **23-28 cm**	Internal finish **Seamless knitted textile support made from composite fibres and HDPE fibres** **Gauge 15** External finish **3/4 Grip&Proof nitrile coating** **Double layer coating: Nitrile Smooth - Sandy Nitrile** **Knitted wrist** Size **7 8 9 10 11** Length **24-29 cm** Washable **x3**	Internal finish **Seamless knitted textile support made from composite fibres and HDPE fibres** **Gauge 13** External finish **3/4 nitrile coating** **Double layer coating: Nitrile Smooth - Sandy Nitrile** **Knitted wrist** Size **7 8 9 10 11** Length **23-28 cm** Washable **x5**
OEKO-TEX® STANDARD 100 CQ 979/2 IFTH	OEKO-TEX® STANDARD 100 CQ 979/2 IFTH	OEKO-TEX® STANDARD 100 CQ 979/2 IFTH	OEKO-TEX® STANDARD 100 CQ 979/2 IFTH	OEKO-TEX® STANDARD 100 CQ 979/2 IFTH
CAT 3	CAT 3	CAT 3	CAT 2	CAT 2
EN388:2016 **4342B** EN407 **X1XXXX** ISO 18889 GR	EN388:2016 **4342B** EN407 **X1XXXX** ISO 18889 GR	EN388:2016 **4342B** EN407 **X1XXXX** ISO 18889 GR	EN388:2016 **4X42C**	EN388:2016 **4X43D**
ISO 13997: 6 N	ISO 13997: 6 N	ISO 13997: 6 N	ISO 13997: 13 N	ISO 13997: 18 N

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MECHANICAL PROTECTION
KRYTECH RANGE

PRECISION WORK
Cut protection cuffs with thumb hole for improved comfort and dexterity and wearer's safety.

HOW CAN YOU REFINE YOUR CHOICE?

1 **ENVIRONMENT**
Select the cuff that meets your needs according to 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
ENVIRONMENTS

low RISK	high RISK
KRYTECH 532	**KRYTECH 532 S**	**KRYTECH 538**
		
Moderate protection reinforcement made from HDPE, ultra thin thumb hole in polyamide	**Moderate protection reinforcement made from HDPE, ultra thin thumb hole in polyamide**	**High-performance protection from HDPE and fiberglass, polyamide ultra-thin thumb loop**
Length **45 cm** · Width **140 mm** · Washable **x5**	Length **45 cm** · Width **95 mm** · Washable **x5**	Length **60 cm** · Width **150 mm** · Washable **x5**
OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH Tested for harmful substances. www.oeko-tex.com/standard100	OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH Tested for harmful substances. www.oeko-tex.com/standard100	OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 CQ 979/2 IFTH Tested for harmful substances. www.oeko-tex.com/standard100
CAT 2	CAT 2	CAT 2
EN388:2016	EN388:2016	EN388:2016
334XB	334XB	4X4XD
ISO 13997: 5.3 N	ISO 13997: 5.3 N	ISO 13997: 17.8 N

MECHANICAL PROTECTION
KRYTECH RANGE

HEAVY HANDLING WORK

Select your cut protection gloves according to your specific needs.

For heavy handling 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 that meets your needs according to 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 ENVIRONMENT			wet ENVIRONMENTS	oily and very dirty ENVIRONMENTS	
high RISK	very high RISK		high RISK	low RISK	high RISK
high-performance SERVICE LIFE	short SERVICE LIFE	high-performance SERVICE LIFE	high-performance SERVICE LIFE		
KRYTECH 836	**KRYTECH 838**	**KRYTECH 832**	**KRYTECH 840**	**KRYTECH 380** GRIP & PROOF TECHNOLOGY	**KRYTECH 395**	**KRYTECH 851** GRIP & PROOF TECHNOLOGY
						
Excellent cutting protection and resistance to wear with optimum dexterity and comfort	**Reinforced cut protection for the food industry. Ambidextrous**	**High-level protection for handling heavy, sharp objects in dry and relatively clean environments**	**High-level protection for handling heavy or sharp objects in wet environments**	**Moderate protection against cutting, grip and skin protected for heavy handling operations in oily/dirty environment**	**Lasting chemical protection and cut protection combined**	**High-level cutting protection, shock absorption, durability and comfort for heavy handling work**
Internal finish **Seamless knitted textile support made from HDPE and composite fibres** **Gauge 13** External finish **Leather covering on palm with thumb/forefinger reinforcements** **Knitted wrist** Size **7 8 9 10 11** Length **27-32 cm** Washable **x5**	Internal finish **Seamless knitted lining made from HDPE fibres** **Gauge 10** Size **6 7 8 9 10 11** Length **34 cm** Washable **x20**	Internal finish **Seamless knitted textile support made from composite fibres** **Gauge 10** External finish **Leather covering on palm with thumb/forefinger reinforcements** **Knitted wrist** Size **8 9 10 11** Length **23-26 cm** Washable **x5**	Internal finish **Seamless knitted textile support made from composite fibres** **Gauge 10** External finish **Latex palm and fingers/ Non-slip embossing** **Knitted wrist** Size **7 8 9 10** Length **23-26 cm**	Internal finish **Seamless knitted textile support made from cotton and HDPE fibres** **Gauge 13** External finish **3/4 double layer coating: Smooth nitrile - Roughened nitrile** **Safety cuff** Size **7 8 9 10** Length **25-27 cm**	Internal finish **Multi-layer technology: combination of high strength and nitrile fibres** External finish **Textile support** Size **8 9 10** Length **32 cm**	Internal finish **Seamless knitted textile support made from HDPE and composite fibres** External finish **Double layer coating: Nitrile Smooth - Sandy Nitrile** **Safety cuff** **Gauge 13** Size **7 8 9 10 11** Length **25-28 cm**
CAT 2	CAT 2	CAT 2	CAT 2	CAT 2	CAT 3	CAT 2
EN388:2016 **4X43D** EN407 **X1XXXX**	EN388:2016 **2X4XE**	EN388:2016 **4X43E** EN407 **X1XXXX**	EN388:2016 **3X43D** EN407 **X2XXXX**	EN388:2016 **4344B** EN407 **X1XXXX**	EN388:2016 **4X43D** EN ISO 374-1:2016 TYPE B **JKOPT** EN407 **X1XXXX** EN ISO 374-5:2016 ISO 13997: 20.4 N	EN388:2016 **4X43DP**
ISO 13997: 17.2 N	ISO 13997: 24.2 N	ISO 13997: 24.3 N	ISO 13997: 19.8 N	ISO 13997: 7.6 N		ISO 13997: 17.6 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

According to 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

For cold, this relates to the intrinsic quality of the coating material. For heat depends on the contact time with the part at a given temperature.

SERVICE LIFE (COLD)

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

CONTACT TIME (HOT)

- **short** contact
- **prolonged** contact

TEMPERATURE -10°C	TEMPERATURE up to 150°C		TEMPERATURE above 150°C
wet ENVIRONMENTS	wet, dry, moderately oily ENVIRONMENTS	dry, 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
		80°C 70s 100°C 30s 125°C 20s	80°C 1min50s 100°C 1min 125°C 38s	80°C 1min50s 100°C 1min 125°C 38s	100°C 37s 150°C 16s 175°C 12s
TEMPICE 770	**TEMPICE 700** GRIP & PROOF TECHNOLOGY	**TEMPDEX 710** PATENTED	**TEMPDEX 720** PATENTED	**TEMPCOOK 476** PATENTED	**TEMPTEC 332**
					
100% sealed for protecting against intense contact cold	**Dexterity** and **comfort** for optimised thermal protection and **durability**	**High dexterity** and thermal protection	**Dexterity and resistance to cuts** for optimised thermal protection	Hygienic with high-temperature thermal protection **100% liquidproof**	Effective thermal insulation and **multi-purpose chemical resistance**
Internal finish Jersey textile support lined with a woollen sleeve External finish Pebbled PVC coating Size 9 10 Length 30 cm	Internal finish Double seamless knitted textile support Gauge 10 for internal seamless Gauge 15 for external seamless External finish 3/4 smooth nitrile coating with sandy nitrile on the palm and fingers Knitted wrist Size 7 8 9 10 Length 24-27 cm Washable x5	Internal finish Seamless knitted textile support Gauge 13 External finish Nitrile coating and dot embossing on palm and finger Knitted wrist Size 7 9 11 Length 24-28 cm	Internal finish Knitted seamless textile support made from aramid fibres. Gauge 10 External finish Nitrile coating and dot embossing on palm and finger Knitted wrist Size 7 9 11 Length 24-28 cm	Internal finish Knitted thermal protection External finish Non-slip embossing Nitrile coating Size 7(S) 9(M) 10(L) Length 45 cm	Internal finish Knitted thermal protection External finish Pebbled Neoprene coating Size 8 9 10 Length 35,5 cm
CAT 3	CAT 2	CAT 2	CAT 2	CAT 3	CAT 3
EN388:2016 4221X EN ISO 374-1:2016 TYPE B KMO EN511 121 EN ISO 374-5:2016	EN388:2016 3222X EN511 02X	EN388:2016 4111X EN407 X1XXXX	EN388:2016 4343B EN407 X2XXXX ISO 13997: 7N	EN388:2016 4443D EN511 111 EN407 X2XXXX EN ISO 374-1:2016 TYPE A AFGJOT EN ISO 374-5:2016	EN388:2016 2212X EN511 111 EN ISO 374-1:2016 TYPE A ACLMNS EN407 X2XXXX

FOOD EXPERT RANGE

Compliance with hygiene rules is an essential requirement in the food industry.
The industry invests to continuously improve the safety of its customers, as producers alone are legally liable for the sanitary quality of their products.

European regulations define precisely the food contact tests to be performed for each type of food.
So, a glove can be approved for the handling of certain foodstuffs and not others.

Indeed, simply affixing the pictogram to a glove without giving more detailed information does not provide an adequate guarantee of compatibility with a given food.

Through its dedicated food industry selection guide, Mapa Professional aims to help end users check the food compliance of each glove according to the foods they actually handle, strictly in line with European and French regulations.

By providing the test results for all of the gloves in its Food Expert range, Mapa Professional aims to meet the strictest requirements of its customers' Quality systems.

These tests are available on our Mapa Professional website

mapa-pro.com

SELECT THE RIGHT GLOVE FOR YOU ACCORDING TO THE FOOD HANDLED
STEP 1 Find the food you handle using the food groups.
STEP 2 Identify the gloves suitable for handling this type of food.

THEN CHECK YOUR GLOVE FOR USE AND COMFORT
STEP 3 Turn to the next page to choose the level of protection required (disposable, thermal protection, cut protection, liquidproof) and the performance required based on your use.

FOOD CONTACT: YOUR SELECTION GUIDE

SELECT THE RIGHT GLOVE

Suitable for contact with this type of food

If **pH > 4,5**, suitable for contact with this type of food
If **pH < 4,5**, unsuitable

Unsuitable for contact with this type of food

STEP 2

STEP 1	YOU ARE HANDLING	Page 49 Disposable – Natural latex: SOLO 988	SOLO 995	Disposable – Nitrile: SOLO 967	Thermal Protection: TEMPCOOK 476	Cut Protection: KRYTECH 838	Page 51 Liquidproof gloves – Waterproof: VITAL 177	VITAL 165	JERSETTE 308	HARPON 326	Page 53 Liquidproof gloves – Completely liquidproof: ULTRANITRIL 472	ULTRANITRIL 475	ULTRANITRIL 495
DRINKS	Non-alcoholic beverages or alcoholic beverages of an alcoholic strength lower than or equal to 6% vol. clear												
	Non-alcoholic beverages or alcoholic beverages of an alcoholic strength lower than or equal to 6% vol. cloudy												
	Alcoholic beverages of an alcoholic strength of between 6% vol. and 20%.												
	Alcoholic beverages of an alcoholic strength above 20%.												
CEREALS, STARCHES, SUGARS, CHOCOLATES AND DERIVED PRODUCTS	Starches, cereals, flour, meal, dry pasta e.g. macaroni, spaghetti and similar products and fresh pasta												
	Biscuits, pastry, cakes and other bakery products, dry, sugar and confectionery products in solid form; without fatty substances												
	Biscuits, pastry, cakes and other bakery products and confectionery products in solid form; with fatty substances, chocolate, substitutes and products coated									■			
	Confectionery products in moist past form												
	Molasses, sugar syrups, honey												
	Confectionery products with fatty substances on the surface								■	■			
FRUIT, VEGETABLES AND DERIVATIVES	Whole fruit, fresh or chilled, unpeeled; dried or dehydrated fruits; nuts shelled and roasted												
	Fresh vegetables, peeled or cut												
	Processed: cut, in the form of purées, paste or preserved in an aqueous medium, including pickled and in brine												
	Processed in an alcoholic medium												
	Preserved vegetables in an oily medium	■	■				■	■	■	■			
	Preserved fruits in an oily medium	■	■				■	■	■	■			
	Nuts in paste or cream form	■	■				■	■	■	■			
FATS AND OILS	Animal or vegetable, natural or treated	■	■				■	■	■	■			
	Water emulsions in oil (margarine, butter)							■	■	■			
ANIMAL PRODUCTS AND EGGS	Crustaceans and molluscs not naturally protected by their shells, preserved fish in an aqueous medium												
	Crustaceans and molluscs not naturally protected by their shells, preserved fish in an oily medium, marinated meat products in an oily medium	■	■				■	■	■	■			
	Crustaceans and molluscs fresh within the shell												
	Fresh fish, chilled, salted, smoked or in the form of paste									■			
	Meat of all zoological species, fresh, chilled, salted, smoked or in the form of paste, creams												
	Preserved and part-preserved meat in an aqueous medium												
	Preserved and part-preserved meat in an oily medium									■			
	Eggs, egg yolks, whites of eggs in a powdered or dried or frozen form												
	Eggs, egg yolks, whites of eggs in a liquid or cooked form												
DAIRY PRODUCTS	Whole, skimmed or partly dried milk												
	Fermented milk (yoghurt, butter milk), cream and sour cream												
	Natural cheese without rind or with edible rind and melting cheese									■			
	Whole cheeses with non-edible form												
	Processed cheese (soft cheese), preserved cheese in an aqueous medium (mozzarella...)												
	Preserved cheese in an oily medium	■	■				■	■	■	■			
	Milk powder including infant formula												
DRESSINGS	Sauces with aqueous character												
	Sauces with fatty character (e.g. mayonnaise, salad creams...)	■	■				■	■	■	■			
	Mustard									■			
	Vinegar	■	■	■				■					
MIXED FOOD PREPARATIONS	Sandwiches, toasted bread, pizza containing any kind of foodstuff with fatty substances on the surface												
	Sandwiches, toasted bread, pizza containing any kind of foodstuff but without fatty substances on the surface												
	Soups, sauces, broths powdered or dried with fatty characters (including yeast)												
	Soups, sauces, broths powdered or dried but without fatty characters (including yeast)												
	Soups, sauces, broths in any other form with fatty characters (including yeast)									■			
	Soups, sauces, broths in any other form but without fatty characters (including yeast)												
	Fried or roasted foods of vegetable origin (fried potatoes, fritters)												
	Fried or roasted foods of animal origin												
OTHERS	Dried foods with fatty substances on the surface												
	Dried foods without fatty substances on the surface												
	Herbs, spices, aromatic herbs, coffee and coffee substitutes, granulated or powdered												
	Spices and seasoning in oily medium	■	■				■	■	■	■			
	Cocoa powder												
	Cocoa paste									■			
	Concentrated extracts of an alcoholic strength equal to or exceeding 6% vol.												
	Frozen or deep-frozen foods												
	Ice-creams												

FOOD EXPERT RANGE

Compliance with hygiene rules is an essential requirement in the food industry. The industry invests to continuously improve the safety of its customers, as producers alone are legally liable for the sanitary quality of their products.

European regulations define precisely the food contact tests to be performed for each type of food. So, a glove can be approved for the handling of certain foodstuffs and not others.

Indeed, simply affixing the pictogram to a glove without giving more detailed information does not provide an adequate guarantee of compatibility with a given food.

Through its dedicated food industry selection guide, Mapa Professional aims to help end users check the food compliance of each glove according to the foods they actually handle, strictly in line with European and French regulations.

By providing the test results for all of the gloves in its Food Expert range, Mapa Professional aims to meet the strictest requirements of its customers' Quality systems.

DISPOSABLE GLOVES

MATERIAL
NATURAL LATEX

FINISHING
POWDERED

SOLO 988

The perfect protection for light food handling

External finish
Smooth

Size
6 7 8 9

Length
23 cm

Thickness
0.10 mm

CAT 3

EN ISO 374-1:2016 TYPE C

EN ISO 374-5:2016

FINISHING
NON POWDERED

SOLO 995

The perfect protection for light food handling

External finish
Smooth with pebbled fingertips

Size
6 7 8 9

Length
24-26 cm

Thickness
0.10 mm

CAT 3

EN ISO 374-1:2016 TYPE C

EN ISO 374-5:2016

MATERIAL
NITRILE

FINISHING
NON POWDERED

SOLO 967

Great value for light handling of oily food
Available in bag and box

External finish
Smooth with pebbled fingertips

Size
6 7 8 9

Length
24.5 cm

Thickness
0.08 mm

CAT 3

EN ISO 374-1:2016 TYPE C

EN ISO 374-5:2016

THERMAL PROTECTION

MATERIAL
NITRILE

TEMP-COOK 476

Hygiene and effective thermal protection
100% liquid-proof

Internal finish
Knitted thermal protection

External finish
Non-slip embossing

Size
7(S) 9(M) 10(L)

Length
45 cm

CAT 3

EN388:2016 **4443D**

EN511 **111**

EN407 **X2XXXX**

EN ISO 374-1:2016 TYPE A **AFGJOT**

EN ISO 374-5:2016

CUT PROTECTION

MATERIAL
TEXTILE FIBRE

KRYTECH 838

Reinforced cut protection for the food industry
Ambidextrous

Internal finish
Seamless knitted lining made from HDPE fibers
Gauge 10

Size
6 7 8 9 10 11

Length
34 cm

Washable **x20**

CAT 2

EN388:2016 **2X4XE**

ISO 13997: 24.2 N

LIQUIDPROOF PROTECTION
LATEX

HOW CAN YOU REFINE YOUR CHOICE?

1 **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)

2 **MATERIAL**

Materials guide for disposable and liquid-proof gloves.

Natural latex
Flexibility, comfort and value for money.

Nitrile
Strength, durability, handling of oily foods with no risk of allergies.

LIQUIDPROOF GLOVES

MATERIAL
NATURAL LATEX

FINISHING CHLORINATED	FINISHING FLOCKED	FINISHING BACKED	FINISHING BACKED WITH GRIP
short WEAR	intermittent WEAR	continuous WEAR	
VITAL 177	**VITAL 165**	**JERSETTE 308**	**HARPON 326**
			
Dexterity and flexibility	**Flexibility and precision dexterity**	**Comfortable and suitable for long-term work**	**Comfort and safety for gripping bulky, slippery foods**
Internal finish **Chlorinated**	Internal finish **Flocked**	Internal finish **Textile support**	Internal finish **Textile support**
External finish **Non-slip embossing**	External finish **Non-slip embossing**	External finish **Smooth**	External finish **Reinforced grip**
Size **6 7 8 9 10**	Size **7 8 9 10**	Size **6 7 8 9 10**	Size **7 8 9 10**
Length **31 cm**	Length **30.5 cm**	Length **30-33 cm**	Length **32 cm**
Thickness **0.40 mm**	Thickness **0.29 mm**	Thickness **1.15 mm**	Thickness **1.35 mm**
CAT 3	CAT 1	CAT 3	CAT 3
EN388:2016 **0010X**; EN ISO 374-1:2016 TYPE B **KPT**; EN ISO 374-5:2016; EN421		EN388:2016 **2131X**; EN ISO 374-1:2016 TYPE B **KPT**; EN407 **X1XXXX**	EN388:2016 **3141X**; EN ISO 374-1:2016 TYPE B **KPT**; EN407 **X1XXXX**

LIQUIDPROOF PROTECTION
NITRILE

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**
- **frequent** contact
- **prolonged** contact (or immersion)

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)

3 MATERIAL

Materials guide for disposable and liquid-proof gloves.

Natural latex
Flexibility, comfort and value for money.

Nitrile
Strength, durability, handling of fatty foods with no risk of allergies.

LIQUIDPROOF GLOVES

MATERIAL
NITRILE

FINISHING **EASY GOING TREATMENT**	FINISHING **FLOCKED**	
short WEAR	**intermittent** WEAR	
ULTRANITRIL 472	**ULTRANITRIL 475**	**ULTRANITRIL 495**
		
Fingertip precision for handling oily foods	**Liquidproof and strong for handling oily foods**	**The lasting solution for safe handling of oily foods**
Internal finish **Chlorinated** External finish **Pebbled** Size **6 7 8 9 10** Length **31 cm** Thickness **0.20 mm**	Internal finish **Flocked** External finish **Non-slip embossing** Size **6 7 8 9 10** Length **31 cm** Thickness **0.34 mm**	Internal finish **Flocked** External finish **Non-slip embossing** Size **6 7 8 9 10** Length **30-33 cm** Thickness **0.41 mm**
CAT 3	CAT 3	CAT 3
EN388:2016 **2101X** EN ISO 374-1:2016 TYPE B **JOT** EN ISO 374-5:2016 EN421 **VIRUS**	EN388:2016 **3001X** EN ISO 374-1:2016 TYPE B **JOT** EN ISO 374-5:2016	EN388:2016 **3101X** EN ISO 374-1:2016 TYPE A **AJKOPT** EN ISO 374-5:2016

CRITICAL ENVIRONMENT PROTECTION

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

Created with innovative, highly technical processes and subject to inspection at every stage of their design and of 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 the effectiveness of the users, their productivity and their 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

ADVANTECH 529

Reinforced mechanical resistance for short duration operations

Material
Nitrile

Internal finish
Chlorinated

External finish
Smooth with pebbled fingertips

Size
6 7 8 9 10

Length
30 cm

Thickness
0.10 mm

CAT 3

EN ISO 374-1:2016 TYPE B
JKT

EN ISO 374-5:2016

EN421

ADVANTECH 519

The chemical protection of nitrile combined with excellent mechanical resistance

Material
Nitrile

Internal finish
Chlorinated

External finish
Chlorinated

Size
7 8 9 10

Length
33 cm

Thickness
0.30 mm

CAT 3

EN388:2016
2001X

EN ISO 374-1:2016 TYPE A
JOT

EN ISO 374-5:2016

ADVANTECH 517

ADVANTECH 513

ADVANTECH 514

ADVANTECH 522

An exclusive, comfortable tripolymer for optimum mechanical and chemical resistance

Material
Mixed formulas (latex, Neoprene and nitrile)

REF 513	**REF 514**	**REF 517**	**REF 522**
Internal finish **Chlorinated**	Internal finish **Chlorinated**	Internal finish **Chlorinated**	Internal finish **Chlorinated**
External finish **Pebbled fingertips**	External finish **Non-slip embossing**	External finish **Non-slip embossing**	External finish **Non-slip embossing**
Size **9**	Size **7 8 9 10**	Size **6 7 8 9 10**	Size **8 9 10**
Length **30 cm**	Length **38 cm**	Length **36 cm**	Length **61 cm**
Thickness **0.20 mm**	Thickness **0.51 mm**	Thickness **0.50 mm**	Thickness **0.50 mm**
CAT 3	CAT 3	CAT 3	CAT 3
EN ISO 374-1:2016 TYPE B KPT	EN388:2016 1110X	EN388:2016 1110X	EN ISO 374-1:2016 TYPE B KST
EN ISO 374-5:2016	EN ISO 374-1:2016 TYPE B KST	EN ISO 374-1:2016 TYPE B KST	EN ISO 374-5:2016
EN421	EN ISO 374-5:2016	EN ISO 374-5:2016	

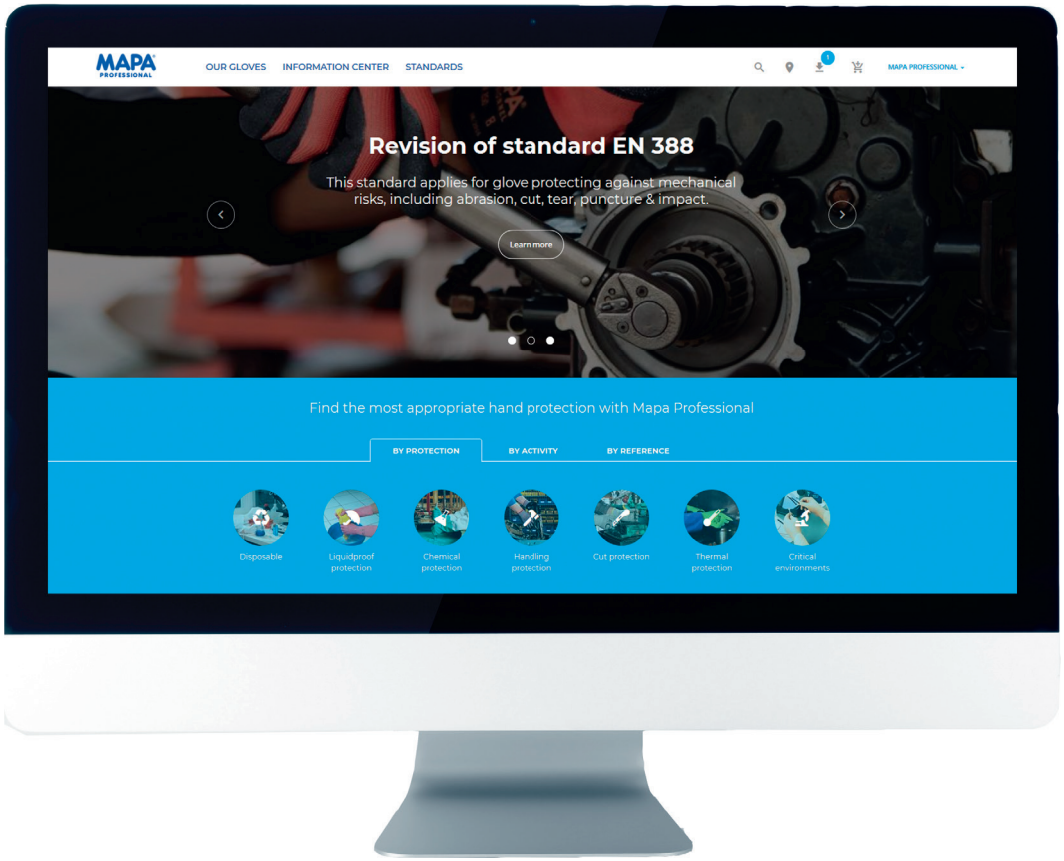
Logistic information

References	Pair/Bag	Pairs/ Masterbag	Pairs/ Carton	Page N^{R}
115	1	10	100	15
117	1	10	100	15
124	1	10	100	15
165	1	10	100	53, 57
174	1	10	100	15
175	1	10	100	15
177	1	10	100	15, 53, 57
180	1	10	100	15
181	1	10	100	15
185	1	10	100	15
186	1	10	100	15
210	1	10	100	15
258	1	10	100	17
260	1	10	50	19
285	1	-	30	19
298	1	5	50	19
299	1	5	50	19
300	1	5	50	17
301	1	5	50	17
307	1	5	50	17
308	1	5	50	53, 57
319	1	5	50	37
321	1	-	50	19
325	1	5	50	19
326	1	5	50	53, 57
328	1	12	96	37
330	1	5	50	37
332	1	-	6	51
339	1	-	6	23
340	1	5	50	23
341	1	5	50	23
344	1	-	1	25
351	-	12	72	15
361	-	5	50	15
375	1	5	50	35
376	1	5	50	35
377	1	5	50	21
380	1	6	48	49
381	-	12	72	21
382	-	12	72	23
383	-	10	100	35
385	-	10	100	35
388	-	10	100	35
391	-	10	100	35
392	-	10	100	35
393	-	10	100	35
395	1	-	12	49
397	1	10	100	35
401	1	10	100	23
405	1	10	100	17
407	1	6	48	23
414	1	-	12	23
415	1	10	100	17
420	1	10	100	23
450	1	10	50	23
454	1	-	50	21
468	1	-	1	25
472	-	10	100	21, 53, 59
475	1	12	72	53, 59
476	1	-	6	51, 53, 55
480	1	-	12	21
487	-	10	100	21
485	-	12	72	21
491	-	10	50	21
492	1	10	100	21
493	1	10	50	21
495	1	10	100	53, 59
500	1	12	96	33
510	1	12	96	31
513	-	50	200	61

References	Pair/Bag	Pairs/ Masterbag	Pairs/ Carton	Page N^{R}
514	1	12	72	61
517	1	12	72	61
519	1	12	72	61
520	1	10	100	15
522	1	6	48	61
524	1	12	96	31
525	1	12	96	33
526	1	12	96	33
527	1	12	96	33
529	-	100	1 000	61
532	-	6	72	47
532 S	-	6	72	47
538	-	6	48	47
540	1	-	100	15
541	-	12	96	33
544	1	12	96	33
548	1	12	96	31
549	1	12	96	31
550	-	10	100	31
551	-	10	100	31
553	1	10	100	33
557	1	10	50	39
558	1	12	96	39
563	1	12	96	39
579	1	12	96	39
580	1	12	48	45
582	1	12	48	45
584	1	12	96	39
585	1	12	48	45
586	1	12	48	43
588	1	12	48	39
599	1	12	48	45
600	1	12	48	45
601	-	12	48	41
610	1	12	48	41
615	1	12	48	43
622	1	12	48	43
641	1	12	96	33
642	1	12	48	39
643	1	12	48	41
644	1	12	48	43
645	1	12	48	43
648	1	12	96	31
650	1	-	25	25
651	1	-	25	25
700	1	12	72	51
710	1	10	50	51
720	1	12	72	51
770	1	-	48	51
810	1	12	48	41
815	1	12	48	43
832	1	12	72	49
833	-	10	100	35
836	1	12	48	49
838	1	-	10	49, 53, 55
840	1	12	72	49
850	1	12	48	37
851	1	12	48	49
967	-	100	1 000	29, 53, 55
977	-	100	1 000	29
987	-	100	1 000	29
988	-	100	1 000	53, 55
990	-	100	1 000	27
992	-	100	1 000	27
994	-	100	1 000	29
995	-	100	1 000	27, 53, 55
996	-	100	1 000	29
997	-	100	1 000	29
998	-	100	1 000	27
999	-	100	1 000	29

For more information

www.mapa-pro.com



- **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

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

Find all our documentation on your smartphone !

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