CATALOGUE **2019-2020**

PROTECTIVE GLOVES

A solution
for every hand
that works

MAPA®
PROFESSIONAL

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

ENERGY
Nuclear, wind turbine, petrochemical industries

CLEANING
Handling of detergents
Industrial cleaning
Small general maintenance jobs

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@mapaspontex.fr

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).

Regulations 2016

Why is PPE regulated?

All professional gloves are personal protection equipment and must comply with European standard 2016/425. The purpose of these regulations is to guarantee a safe working environment for the user of the PPE along with public health. This means that PPE must provide the level of protection required without compromising the user's health. To meet this requirement, PPE are defined by a harmonised European standard. This governs the degree of protection of the PPE along with the comfort and satisfaction of the user. It also ensures that the PPE can circulate freely within the European Union without reducing the level of protection required due to unfair competition.

Regulation 2016/425

This regulation was implemented on 21 April 2018.
Directive 89/686 was cancelled from this date.
It relates to all citizens of the EU.
It does not need to be transposed into national law and so is the same in all countries of the European Union.

DIRECTIVE 89/686 REPLACED BY REGULATION 2016/425

Main differences:

European Directives regarding personal protective equipment lay down the requirements that the equipment and their users must satisfy.
The standards are used to draw up technical specifications that meet these new requirements.
Directive 89/656/EEC (use) lays down the requirements that employers must meet with regard to the supply and use of PPE by their employees.
Directive (EU) 2016/425 stipulates the essential requirements for marketing protective gloves within the European Union.

The whole Mapa Professional range is certified as compliant with these criteria and carries the CE marking.

CERTIFICATION CATEGORIES CE

CAT 1

The manufacturer is responsible for the conformity of their products with respect to the essential requirements of the directive.

CAT 2

Certificate of conformity obtained from a notified body.

CAT 3

Certificate of conformity and regular production inspections on the manufacturer's premises by the notified bodies.

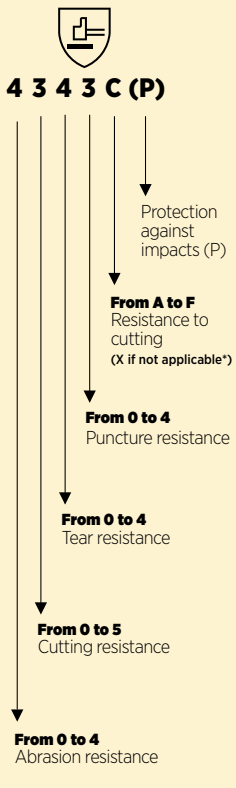
How to read the standards?

The following pictograms, defined according to European standards, can help you understand the performance characteristics of a glove:

MECHANICAL PROTECTION

MECHANICAL HAZARDS

EN 388



CHEMICAL PROTECTION

SPECIFIC CHEMICAL PROTECTION

EN ISO 374-1

EN ISO 374-1 / TYPE A

A J K L P R

Penetration time (Resistance to penetration EN 374-2) **≥ 30 min**

for at least **6 chemical products** on the new list (EN 16523-1)

EN ISO 374-1 / TYPE B

J K L

Penetration time (Resistance to penetration EN 374-2) **≥ 30 min**

for at least **3 chemical products** on the new list (EN 16523-1)

EN ISO 374-1 / TYPE C

Penetration time (Resistance to penetration EN 374-2) **≥ 10 min**

for at least **1 chemical product** on the new list (EN 16523-1)

LETTER CODE

A	Methanol	**D**	Dichloromethane	**G**	Diethylamine	**J**	n-Heptane
B	Acetone	**E**	Carbon disulphide	**H**	Tetrahydrofuran	**K**	Sodium hydroxide 40%
C	Acetonitrile	**F**	Toluene	**I**	Ethyl acetate	**L**	Sulphuric acid 96%

EN ISO 374-5 : 2016
Protective gloves against micro-organisms. The gloves must pass the penetration resistance test in compliance with standard EN 374-2: 2014.
The option to lay claim to protection against viruses was added if the glove passed test ISO 16604: 2004 (method B).

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

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

OTHER

RADIOACTIVE CONTAMINATION

EN 421

WITH NO PERFORMANCE LEVELS

THERMAL PROTECTION

COLD HAZARD

EN 511

3 2 1

From 0 or 1
Water permeability

From 0 to 4
Contact cold resistance

From 0 to 4
Convective cold resistance

HEAT AND FIRE

EN 407

1 2 3 4 3 4

From 0 to 4
Resistance to large splashes of molten metal

From 0 to 4
Resistance to small splashes 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
Fire behaviour

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

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

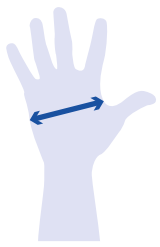
Rolled cuff
Increased resistance to tearing when putting gloves on

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.



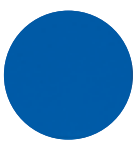
Glove thickness
This influences the user's dexterity and the performance of the glove.
Varies between 0.1 and 2.5 mm.

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

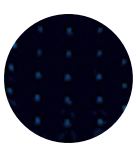


Smooth
Does not mark the handled objects

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

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 going 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.

MAPA TECHNOLOGIES
(SEE NEXT PAGE)

GRIP & PROOF

GRIP&PROOF
Excellent grip in oily environments combined with liquidproof protection

DURA COMFORT

DURACOMFORT
Comfort and allows hand to breathe without compromising durability

UNDERSTANDING THE SPECIAL FEATURES OF A GLOVE TO IMPROVE CHOICE

GRIP & PROOF

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

DURA COMFORT

Our **DURACOMFORT** 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 DURACOMFORT 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

Product specially developed for precise and repetitive tasks where dexterity, comfort and durability are required

Products especially developed for precise or repetitive tasks where dexterity, comfort and durability are required with a high degree of cutting protection

ULTRANE 541 — CUT LEVEL A

COMFORT & BREATHABILITY
- **High degree of flexibility** through fine knitting (Gauge 15) and flexible coating
- Second skin effect for **excellent dexterity**
- **High breathability**

DURABILITY
- **An optimised dipping process** which provides full control over the properties of the coating for prolonged use of the product

ADVANTAGES
- **Silicon - free**
- **No DMF**
- **Oekotex** which guarantees the absence of certain substances
- No painting refusal

Packaging	**12 pairs per bag** **96 pairs per box**
Washability	**Once at 40°C**

KRYTECH 583 — CUT LEVEL C

COMFORT
- **High degree of flexibility** due to a fine liner and flexible coating
- **Pleasant skin contact** thanks to plated knitting

RESISTANCE
- **An optimised dipping process** which provides full control over the properties of the coating

ADVANTAGES
- **Silicon - free**
- **No DMF**
- **Oekotex** which guarantees the absence of certain substances
- No painting refusal

Packaging	**Individually packed** **12 pairs per bag** **48 pairs per box**

KRYTECH 585 — CUT LEVEL C

COMFORT
- **High degree of flexibility** due to a fine liner and flexible coating
- **Pleasant skin contact** thanks to plated knitting

RESISTANCE
- **An optimised dipping process** which provides full control over the properties of the coating

ADVANTAGES
- **Silicon - free**
- **No DMF**
- **Oekotex** which guarantees the absence of certain substances
- No painting refusal

Packaging	**Individually packed** **12 pairs per bag** **48 pairs per box**
Washability	**3 times at 60°C**

KRYTECH 622 — CUT LEVEL E

COMFORT
- **High degree of protection** against cutting without compromising comfort and dexterity
- **Knitted and plated without seams** for good dexterity and flexibility
- **High breathability**
- Tactile **performance**

RESISTANCE
- **Good durability** which provides better productivity and optimises your costs

ADVANTAGES
- **Silicon - free**
- **Oekotex** which guarantees the absence of certain substances
- No painting refusal

Packaging	**Individually packed** **12 pairs per bag** **48 pairs per box**

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 ACIDS (sulphuric acid 96%)	7664-93-9	L	•	•		••	•••	•••
OXIDIZING 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				
frequent CONTACT	**splashes**				
continuous WEAR	**short** WEAR		**intermittent** WEAR		
TELSOL 361	**TELSOL 351**	**VITAL 174**	**VITAL 520**	**VITAL 115**	**VITAL 210**	**VITAL 180**
						
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 agressive environments	Precision dexterity in non-agressive environments	The effective response to contact with aggressive detergents	Dexterity and better resistance to oils and greases
Internal finish **Textile support** External finish **Pebbled** Size **9 10** Length **35 cm** Thickness **1.20 mm**	Internal finish **Textile support** External finish **Pebbled** Size **8 9 10** Length **30 cm** Thickness **1.35 mm**	**VITAL 174** Internal finish **Easy going treatment** External finish **Pebbled** Size **7 8 9** Length **31 cm** Thickness **0.45 mm** **VITAL 175. 177** Internal finish **Easy going treatment** External finish **Non-slip embossing** Size **6 7 8 9 10** Length **31 cm** Thickness **0.40 mm**	**VITAL 520** Internal finish **Powdered** External finish **Smooth** Size **6 7 8 9** Length **33 cm** **VITAL 540** Internal finish **Powdered** External finish **Non-slip grip** Size **6 7 8 9** Length **31 cm** Thickness **0.40 mm**	**VITAL 115** Internal finish **Flocked** External finish **Pebbled** Size **6 7 8 9** Length **30.5 cm** **VITAL 117. 124** Internal finish **Flocked** External finish **Non-slip embossing** Size **6 7 8 9 10** Length **30.5 cm** Thickness **0.35 mm**	Internal finish **Flocked** External finish **Non-slip embossing** Size **6 7 8 9** Length **32 cm** Thickness **0.50 mm**	**VITAL 180** Internal finish **Flocked** External finish **Non-slip embossing** Size **6 7 8 9 10** Length **30 cm** **VITAL 181** Internal finish **Flocked** External finish **Pebbled** Size **7 8 9** Length **31 cm** Thickness **0.40 mm**
CAT 3	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3
EN388:2016 **4141X** EN ISO 374-1:2016 TYPE B **KMO**	EN388:2016 **4121X** EN ISO 374-5:2016 EN ISO 374-1:2016 TYPE A **KLMNPT**	EN388:2016 **0010X** EN 421 EN ISO 374-1:2016 TYPE B **KPT** EN ISO 374-5: 2016 **VIRUS*** (*VITAL 174 & 175)	EN 421 EN ISO 374-5:2016 EN388:2016 **2010X (VITAL 520) 0010X (VITAL 540)** EN ISO 374-1:2016 TYPE B **KMP (VITAL 520) KPT (VITAL 540)**	EN 421 EN ISO 374-5:2016 EN388:2016 **0010X** EN ISO 374-1:2016 TYPE B **KPT**	EN 421 EN ISO 374-5:2016 EN388:2016 **1110X** EN ISO 374-1:2016 TYPE B **KPS**	EN388:2016 **1110X** EN ISO 374-5:2016 EN ISO 374-1:2016 TYPE B **KPT**

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**
- **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)

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 **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 2	CAT 2
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**
- **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)

MATERIAL
LATEX

frequent CONTACT	prolonged CONTACT			
continuous WEAR	short WEAR		intermittent WEAR	
HARPON 321	**ALTO 298**	**ALTO 285**	**ALTO 260**	**ALTO 299**
				
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**	**A good choice when dexterity and chemical protection is needed for extended wear**	**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**	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 2	CAT 3	CAT 3	CAT 3	CAT 3
EN388:2016 **3141X** EN ISO 374-1:2016 TYPE B **KPT** EN407 **X1XXXX**	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	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**
- **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)

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 485**	**ULTRANITRIL 492**	**ULTRANITRIL 381**	**ULTRANITRIL 480**	**ULTRANITRIL 493**
					
Fingertip precision for light chemical protection and food handling	Good sensitivity for standard chemical protection	Good mechanical resistance and long-lasting chemical protection	Maximum comfort for standard chemical protection	Ultra-long chemical protection	Ultra-long chemical protection
Internal finish **Easy going treatment** 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 **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**	Internal finishe **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**
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 **3101X** EN ISO 374-1:2016 TYPE B **JKOPT** EN ISO 374-5: 2016	EN388:2016 **3101X** EN ISO 374-1:2016 TYPE B **AJKOPT** EN ISO 374-5: 2016 VIRUS	EN388:2016 **3111A** EN ISO 374-1:2016 TYPE A **JKLOPT** EN407 EN ISO 374-5: 2016 X2XXXX	EN388:2016 **4102X** EN ISO 374-1:2016 TYPE A **AJKOPT** EN ISO 374-5: 2016	EN388:2016 **4102X** EN ISO 374-1:2016 TYPE A **AJKOPT** EN ISO 374-5: 2016
ULTRANITRIL 487		**ULTRANITRIL 454**		**ULTRANITRIL 377**	
					
Fingertip precision for light chemical protection		Precision dexterity in mildly aggressive environments, for those sensitive to natural latex		Comfort and reinforced mechanical resistance for long-lasting chemical protection	
Internal finish **Easy going 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 **Textile support** External finish **Smooth** Size **7 8 9 10** Length **38 cm** Thickness **1.30 mm**	
CAT 3		CAT 3		CAT 3	
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 **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**
- **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)

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** External finish **Non-slip embossing** Size **7 8 9 10** Length **31 cm** Thickness **0.55 mm**	Internal finish **Textile support** External finish **Smooth** Size **7 8 9 10** Length **38 cm** Thickness **1.30 mm**	Internal finish **Flocked** External finish **Non-slip embossing** **420** Size **6 7 8 9 10** Length **31 cm** **450** Size **7 8 9 10** Length **41 cm** Thickness **0.75 mm**	Internal finish **Textile support** External finish **Smooth** Size **8 9 10 11** Length **38 cm** Thickness **1.45 mm**	Internal finish **Mapa technology Textile support** External finish **Non-slip embossing** Size **6 7 8 9 10** Length **35.5 cm** Thickness **0.90 mm**	Internal finish **Chlorinated** External finish **Non-slip embossing** Size **9 10** **407** Length **35.5 cm** **414** Length **45.5 cm** Thickness **0.75 mm**	Internal finish **Textile support** External finish **Pebbled** Size **9 10** Length **35.5 cm** Thickness **1.35 mm**
CAT 3	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3	CAT 3
EN388:2016 **2110X** EN ISO 374-1:2016 TYPE A **ALMNST** EN ISO 374-5:2016	EN388:2016 **2121X** EN ISO 374-1:2016 TYPE A **CLMNST** EN407 **X1XXXX** EN ISO 374-5:2016	EN388:2016 **2121X** EN ISO 374-1:2016 TYPE A **ALMNST** EN ISO 374-5:2016	EN388:2016 **2121X** EN ISO 374-1:2016 TYPE A **ACLMNS** EN407 **X1XXXX** EN ISO 374-5:2016	EN388:2016 **2121X** EN ISO 374-1:2016 TYPE A **ALMNST** EN407 **X2XXXX** EN ISO 374-5:2016	EN388:2016 **2111X** EN ISO 374-1:2016 TYPE A **ABCJLMNS** EN ISO 374-5:2016	EN388:2016 **3121X** EN ISO 374-1:2016 TYPE A **ABCJLMNS** 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**
- **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)

MATERIAL
BUTYL

short WEAR

BUTOFLEX 651

Ultimate specific chemical resistance

Internal finish
Easy going treatment

External finish
Non-slip embossing

Size
7 8 9 10

Length
35 cm

Thickness
0.50 mm

CAT 3

EN388:2016 **0010X**
EN ISO 374-1:2016 TYPE A **ABCILMNOS**
EN ISO 374-5:2016

ultra-comfort WEAR

BUTOFLEX 650

Ultimate specific chemical resistance

Internal finish
Mapa technology Textile support

External finish
Non-slip embossing

Size
7 8 9 10 11

Length
35 cm

Thickness
1.50 mm

CAT 3

EN388:2016 **1121X**
EN ISO 374-1:2016 TYPE A **ABCILMNOS**
EN ISO 374-5:2016

MATERIAL
FLUOROELASTOMER

short WEAR

FLUOTECH 468

Tactile sensitivity with wear indicator

Internal finish
Chlorinated

External finish
Smooth

Size
8 9 10

Length
30 cm

Thickness
0.50 mm

CAT 3

EN388:2016 **3102X**
EN ISO 374-1:2016 TYPE A **ADEFGLJMNO**
EN ISO 374-5:2016

continuous WEAR

FLUOTECH 344

Comfort and flexibility for extended wear

Internal finish
Textile support

External finish
Smooth

Size
9 10

Length
37 cm

Thickness
1.50 mm

CAT 3

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 DONING 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 LATEX		
COMFORT POWDERED	COMFORT CHLORINATED	COMFORT EASY GOING TREATMENT	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 **Textured**	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	EN ISO 374-1:2016 TYPE C; EN ISO 374-5:2016	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 DONING 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: 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 bagged and boxed (Solo Ultra 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 going treatment** External finish **Pebbled** Size **6 7 8 9 10** Length **24.5 cm** Thickness **0.08 mm**	Internal finish **Chlorinated** External finish **Smooth with pebbled fingertips** Size **6 7 8 9** 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 JKT	EN ISO 374-1:2016 TYPE B EN ISO 374-5:2016 JKT	EN ISO 374-1:2016 TYPE B EN ISO 374-5:2016 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			ENVIRONMENT oily and very dirty		
short SERVICE LIFE	long SERVICE LIFE		high-performance SERVICE LIFE		
ULTRANE 548	**ULTRANE 551**	**ULTRANE 510**	**ULTRANE 541**	**ULTRANE 553**	**ULTRANE 500**
					
Optimal dexterity and sensitivity for light protection	**Unbeatable for fingertip precision**	**Optimal comfort, high level of breathability & durability for precision work**	**Comfort, suppleness and high dexterity without any compromise on durability**	**Unbeatable for fingertip precision in dirty environments**	**Assured grip, skin protected and excellent dexterity in slightly oily/dirty environments**
Internal finish **Seamless knitted** **Textile support**	Internal finish **Seamless knitted** **Textile support**	Internal finish **Seamless knitted** **Textile support**	Internal finish **Seamless knitted** **Textile support**	Internal finish **Seamless knitted** **Textile support**	Internal finish **Seamless knitted** **Textile support**
External finish **Polyurethane coating on palm and fingers** **Gauge 13**	External finish **Polyurethane coating on palm and fingers** **Gauge 13**	External finish **Polymer coating with aqueous base on the palm and fingers** **Gauge 13**	External finish **Roughened nitrile coating on the palm and fingers** **Gauge 15**	External finish **Nitrile coating on palm and fingers** **Gauge 13**	External finish **Double layer coating: Nitrile Smooth - Roughened Nitrile** **Ultrane 500** palm and fingers **Ultrane 525** 3/4 coating **Ultrane 526** complete coating **Gauge 13**
Size **Ultrane 548** 6 7 8 9 10 11 **Ultrane 549** 6 7 8 9 10	Size **Ultrane 551** 6 7 8 9 10 11 **Ultrane 550** 6 7 8 9 10 11	Size **6 7 8 9 10 11**	Size **6 7 8 9 10 11**	Size **6 7 8 9 10**	Size **Ultrane 500** 6 7 8 9 10 11 **Ultrane 525** 7 8 9 10 11 **Ultrane 526** 7 8 9 10 11
Length **22-27 cm**	Length **22-27 cm**	Length **22-27 cm** Washable **x1**	Length **22-27 cm** Washable **x1**	Length **22-26 cm**	Length **23-28 cm** Washable **x5**
CAT 2	CAT 2	CAT 2	CAT 2	CAT 2	CAT 2
EN388:2016 **3121X**	EN388:2016 **4131X**	EN388:2016 **4131X**	EN388:2016 **4121A** EN407 **X1XXXX**	EN388:2016 **4121X**	EN388:2016 **4121X**

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**	**TITAN 397**	**TITAN 385**	**TITAN 393**
				
Comfort and dexterity for common tasks	**Protection for all types of light handling activities**		**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** 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**	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	CAT 2		CAT 2	CAT 2	CAT 2
EN388:2016 **3111X**	EN388:2016 **3111X**		EN388:2016 **3111X**	EN388:2016 **4111X**	EN388:2016 **4111X**	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**
		
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** External finish **Natural latex anti-slip coating on palm and fingers** **Embossed, anti-slip texture** **Knitted cuff** **Gauge 10** 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** External finish **Nitrile coating on the palm and fingers** **Double layer coating: smooth nitrile - roughened nitrile** **Gauge 13** 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 511**	**KRYTECH 588**
						
Moderate protection for very precise handling in reasonably clean environments		**Moderate protection for precise handling in reasonably clean environments**		**Moderate protection and durability for precise handling in reasonably clean environments**	**Cut protection for optimum comfort, high level of breathability & durability for precision work**	**Cutting, grip and dexterity for dry and slightly oily environments**
Internal finish **Seamless knitted support manufactured from HDPE fibres** External finish **Polyurethane coating on palm and fingers** **Gauge 13** Size **6 7 8 9 10 11** Length **22-27 cm** Washable **x5**	Internal finish **Seamless knitted support manufactured from HDPE fibres** External finish **Polyurethane coating on palm and fingers** **Gauge 13** Size **6 7 8 9 10 11** Length **27-32 cm** Washable **x5**	Internal finish **Seamless knitted support manufactured from HDPE fibres** External finish **Polyurethane coating on palm and fingers** **Gauge 13** Size **6 7 8 9 10 11** Length **22-27 cm** Washable **x5**	Internal finish **Seamless knitted support manufactured from HDPE fibres** External finish **Polyurethane coating on palm and fingers** **Gauge 13** Size **7 8 9 10 11** Length **26-31 cm** Washable **x5**	Internal finish **Seamless knitted support manufactured from HDPE fibres** External finish **Nitrile coating on palm and fingertips** **Gauge 13** Size **7 8 9 10 11** Length **23-27 cm**	Internal finish **Seamless knitted support manufactured from HDPE fibres** External finish **Polymer coating with aqueous base on the palm and fingertips** **Gauge 13** Size **7 8 9 10 11** Length **23-27 cm** OEKO-TEX® STANDARD 100	Internal finish **Seamless knitted support manufactured from HDPE fibres** External finish **Roughened nitrile coating one layer** **Gauge 13** Size **7 8 9 10 11** Length **23-28 cm** Washable **x1** OEKO-TEX® STANDARD 100
CAT 2	CAT 2	CAT 2	CAT 2	CAT 2	CAT 2	CAT 2
EN388:2016 **4342B**	EN388:2016 **4342B**	EN388:2016 **4343B**	EN388:2016 **4343B**	EN388:2016 **4343B**	EN388:2016 **4341B**	EN388:2016 **4343B**
ISO 13997: 5.3 N	ISO 13997: 5.3 N	ISO 13997: 5.3 N	ISO 13997: 5.3 N	ISO 13997: 6.5 N	ISO 13997: 6.1 N	ISO 13997: 5.9 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		high RISK	very high RISK
short SERVICE LIFE	long SERVICE LIFE	high-performance SERVICE LIFE	long SERVICE LIFE	

KRYTECH 601	KRYTECH 610	KRYTECH 531	KRYTECH 583	KRYTECH 586	KRYTECH 615	KRYTECH 622
						
An ambidextrous glove with a high dexterity coupled with a good cut performance and comfort	A cut protection with a maximum comfort. A seamless plaited glove for very good fit, dexterity and flexibility.	High-level cutting protection for optimum comfort, high level of breathability & durability for precision work	Suppleness and breathability without compromise on protection & durability	High-level protection for precise handling in reasonably clean environments	A high cut protection with a maximum comfort. A seamless plaited glove for very good fit, dexterity and flexibility	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** External finish **Without coating** **Gauge 13** Size **7 8 9 10 11** Length **23-28 cm** Washable **x1**	Internal finish **Seamless knitted textile support in composite and HDPE fibres** External finish **Polyurethane coating on the palm and fingers** **Gauge 13** Size **6 7 8 9 10 11** Length **24-29 cm** Washable **x3**	Internal finish **Seamless knitted support manufactured from HDPE fibres** External finish **Polymer with aqueous base on the palm and fingers** **Gauge 13** Size **7 8 9 10 11** Length **23-27 cm** Washable **x1**	Internal finish **Seamless knitted textile support in composite and HDPE fibres** External finish **Roughened nitrile coating on the palm and fingertips** **Gauge 15** Size **7 8 9 10 11** Length **24-29 cm**	Internal finish **Seamless knitted support manufactured from HDPE fibres** External finish **Polyurethane on palm and fingers** **Gauge 13** Size **6 7 8 9 10 11** Length **24-30 cm** Washable **x3**	Internal finish **Seamless knitted textile support in composite and HDPE fibres** External finish **Polyurethane coating on the palm and fingers** **Gauge 13** Size **6 7 8 9 10 11** Length **24-29 cm** Washable **x3**	Internal finish **Seamless knitted textile support in composite and HDPE fibres** External finish **Polyurethane coating on the palm and fingers** **Gauge 13** Size **6 7 8 9 10 11** Length **24-29 cm** Washable **x5**
CAT 2 EN388:2016 **1X4XC** **ISO 13997: 14.2 N**	CAT 3 EN388:2016 **4X43C** **ISO 13997: 14.9 N**	CAT 3 EN388:2016 **4X42C** **ISO 13997: 14N**	CAT 2 EN388:2016 **4X42C** **ISO 13997: 11 N**	CAT 2 EN388:2016 **4X43D** **ISO 13997: 18.6 N**	CAT 3 EN388:2016 **4X43D** **ISO 13997: 20 N**	CAT 2 EN388:2016 **4X43E** **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

Moderate protection, grip and skin protected for precise handling slightly oily and dirty environments

Internal finish
Seamless knitted textile support of HDPE fibre

External finish
Grip&Proof nitrile coating on palm and fingers
Gauge 13

Size
6 7 8 9 10 11

Length
23-28 cm

OEKO-TEX® STANDARD 100

CAT 2

EN388:2016

4342B

ISO 13997: 6 N

KRYTECH 599

Moderate protection against cutting, grip and skin protected for complex handling operations in oily environment

Internal finish
Seamless knitted textile support of HDPE fibre

External finish
3/4 Grip&Proof nitrile coating
Gauge 13

Size
7 8 9 10 11

Length
23-28 cm

OEKO-TEX® STANDARD 100

CAT 2

EN388:2016

4342B

ISO 13997: 6 N

KRYTECH 600

Moderate protection against cutting, grip and skin protected for complex handling operations in very oily environment

Internal finish
Seamless knitted textile support of HDPE fibre

External finish
Full coating in Grip&Proof nitrile
Gauge 13

Size
7 8 9 10

Length
23-28 cm

OEKO-TEX® STANDARD 100

CAT 2

EN388:2016

4342B

ISO 13997: 6 N

KRYTECH 585

Enhanced safety, comfort and durability with Grip & Proof Technology

Internal finish
Seamless knitted textile support made from composite fibres and HDPE fibres

External finish
3/4 Grip&Proof nitrile coating
Gauge 15

Size
7 8 9 10 11

Length
24-29 cm

Washable
x3

OEKO-TEX® STANDARD 100

CAT 2

EN388:2016

4X42C

ISO 13997: 13 N

KRYTECH 582

High-level cutting protection for complex handling operations in oily environment

Internal finish
Seamless knitted textile support made from composite fibres and HDPE fibres

External finish
3/4 nitrile coating
Gauge 13

Size
7 8 9 10 11

Length
23-28 cm

Washable
x5

OEKO-TEX® STANDARD 100

CAT 2

EN388:2016

4X43D

ISO 13997: 18 N

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 ARM 532

Moderate protection reinforcement made from HDPE, ultra thin thumb hole in polyamide

Length	Width	Washable
45 cm	140 mm	x5

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 00000000 Institute

CAT 2
EN388:2016
334XB
ISO 13997: 5.3 N

KRYTECH ARM 532 S

Moderate protection reinforcement made from HDPE, ultra thin thumb hole in polyamide

Length	Width	Washable
45 cm	95 mm	x5

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 00000000 Institute

CAT 2
EN388:2016
334XB
ISO 13997: 5.3 N

KRYTECH ARM 538

High-performance protection from HDPE and fiberglass, polyamide ultra-thin thumb loop

Length	Width	Washable
60 cm	150 mm	x5

OEKO-TEX® CONFIDENCE IN TEXTILES STANDARD 100 00000000 Institute

CAT 2
EN388:2016
4X4XD
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
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
Internal finish **Seamless knitted textile support made from HDPE and composite fibres** External finish **Leather covering on palm with thumb/forefinger reinforcements** **Gauge 13** Size **7 8 9 10 11** Length **27-32 cm** Washable **x5**	Internal finish **Seamless knitted textile support made from HDPE and composite fibres** External finish **Gauge 10** Size **7 8 9 10 11** Length **34 cm** Washable **x20**	Internal finish **Seamless knitted textile support made from composite fibres** External finish **Leather covering on palm with thumb/forefinger reinforcements** **Gauge 10** Size **8 9 10 11** Length **23-26 cm** Washable **x5**	Internal finish **Seamless knitted textile support made from composite fibres** External finish **Latex palm and fingers/ Non-slip embossing** **Gauge 10** Size **7 8 9 10** Length **23-26 cm**	Internal finish **Seamless knitted textile support made from cotton and HDPE fibres** External finish **3/4 double layer coating: Smooth nitrile - Roughened nitrile** **Safety cuff** **Gauge 13** Size **7 8 9 10** Length **25-27 cm**
CAT 2	CAT 2	CAT 2	CAT 2	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**
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

KRYTECH 395	**KRYTECH 851**
	 GRIP & PROOF
Lasting chemical protection and cut protection combined	High-level cutting protection, shock absorption, durability and comfort for heavy handling work
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 nitrile layer coating: Smooth nitrile - Roughened nitrile palm and fingers** Size **7 8 9 10 11** Length **25-28 cm**
CAT 3	CAT 2
EN388:2016 **4X43D** EN ISO 374-1:2016 TYPE B **JKOPT** EN407 **X1XXXX** EN ISO 374-5:2016	EN388:2016 **4X43DP**
ISO 13997: 20.4 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**: 80°C **70s**; 100°C **30s**; 125°C **20s**	CONTACT TIME **prolonged**: 80°C **1min50s**; 100°C **1min**; 125°C **38s**	CONTACT TIME **prolonged**: 80°C **1min50s**; 100°C **1min**; 125°C **38s**	CONTACT TIME **short-term**: 100°C **37s**; 150°C **16s**; 175°C **12s**

TEMPICE 770

100% sealed for protecting against intense contact cold

Internal finish
Jersey textile support lined with a woollen sleeve

External finish
Pebbled

Material	Size	Length
PVC	9 10	30 cm

CAT 3

EN388:2016 **4221X**
EN ISO 374-1:2016 TYPE B **KMO**
EN511 **121**
EN ISO 374-5:2016

TEMPICE 700

Dexterity and **comfort** for optimised thermal protection and **durability**

Internal finish
Seamless knitted textile support

External finish
3/4 nitrile coating
Gauge 15

Material	Size	Length
PVC	7 8 9 10	24-27 cm

Washable
x5

CAT 2

EN388:2016 **3222X**
EN511 **02X**

TEMPDEX 710

High dexterity and thermal protection

Internal finish
Seamless knitted textile support

External finish
Nitrile coating and dot embossing on palm and finger
Gauge 13

Material	Size	Length
Textile	7 9 11	24-28 cm

CAT 2

EN388:2016 **4111X**
EN407 **X1XXXX**

TEMPDEX 720

Dexterity and resistance to cuts for optimised thermal protection

Internal finish
Knitted seamless textile support made from aramid fibres.

External finish
Nitrile coating and dot embossing on palm and finger
Gauge 10

Material	Size	Length
Textile	7 9 11	24-28 cm

CAT 2

EN388:2016 **4343B**
EN407 **X2XXXX**

ISO 13997 : 10.2 N

TEMPCOOK 476

Hygienic with high-temperature thermal protection **100% liquidproof**

Internal finish
Knitted thermal protection

External finish
Non-slip embossing

Material	Size	Length
Nitrile	9 11 12	45 cm

CAT 3

EN388:2016 **4443D**
EN511 **111**
EN407 **X2XXXX**
EN ISO 374-1:2016 TYPE A **AFGJOT**
EN ISO 374-5:2016

TEMPTEC 332

Effective thermal insulation and **multi-purpose chemical resistance**

Internal finish
Knitted thermal protection

External finish
Pebbled

Material	Size	Length
Neoprene	8 9 10	35,5 cm

CAT 3

EN388:2016 **2212X**
EN ISO 374-1:2016 TYPE A **ACLMNS**
EN511 **111**
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 Web site

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.

Page 23 | Page 24 | Page 25

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	Disposable – Natural latex: SOLO 988	Disposable – Natural latex: SOLO 995	Disposable – Nitrile: SOLO 967	Thermal Protection: TEMPCOOK 476	Cut Protection: KRYTECH 838	liquidproof gloves – Waterproof: VITAL 177	Waterproof: VITAL 165	Waterproof: JERSETTE 308	Waterproof: HARPON 326	Completely liquidproof: ULTRANITRIL 472	Completely liquidproof: ULTRANITRIL 475	Completely liquidproof: 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

SOLO 988

MATERIAL
NATURAL LATEX

FINISHING
POWDERED

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

SOLO 995

MATERIAL
NATURAL LATEX

FINISHING
CHLORINATED

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

SOLO 967

MATERIAL
NITRILE

FINISHING
CHLORINATED

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

External finish
Pebbled, chlorinated

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

TEMP-COOK 476

MATERIAL
NITRILE

Hygiene and effective thermal protection
100% liquid-proof

Internal finish
Knitted thermal protection

External finish
Non-slip embossing

Size
9(S) 11(M) 12(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

KRYTECH 838

MATERIAL
TEXTILE FIBRE

Reinforced cut protection for the food industry.
Ambidextrous

Internal finish
Seamless knitted material made from HDPE fibres

External finish
Gauge 10

Size
6 7 8 9 10 11

Length
34 cm

Washable
x20

CAT 2

EN388:2016
2X4XE

ISO 13997: 26 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** External finish **Non-slip embossing** Size **6 7 8 9 10** Length **31 cm** Thickness **0.40 mm**	Internal finish **Flocked** External finish **Non-slip embossing** Size **7 8 9 10** Length **30.5 cm** Thickness **0.29 mm**	Internal finish **Textile support** External finish **Smooth** Size **6 7 8 9 10** Length **30-33 cm** Thickness **1.15 mm**	Internal finish **Textile support** External finish **Reinforced grip** Size **7 8 9 10** Length **32 cm** Thickness **1.35 mm**
CAT 3	CAT 1	CAT 2	CAT 2
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 **CHLORINATED**	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**	Internal finish **Flocked**	Internal finish **Textile support**
External finish **Pebbled**	External finish **Non-slip embossing**	External finish **Smooth**
Size **6 7 8 9 10**	Size **6 7 8 9 10**	Size **6 7 8 9 10**
Length **31 cm** Thickness **0.20 mm**	Length **31 cm** Thickness **0.34 mm**	Length **30-33 cm** Thickness **1.15 mm**
CAT 3	CAT 3	CAT 3
EN388:2016 **2101X**	EN388:2016 **3001X**	EN388:2016 **3101X**
EN ISO 374-1:2016 TYPE B **JOT**	EN ISO 374-1:2016 TYPE B **JOT**	EN ISO 374-1:2016 TYPE A **AJKOPT**
EN ISO 374-5:2016	EN ISO 374-5:2016	EN ISO 374-5:2016
EN421		

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, they 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

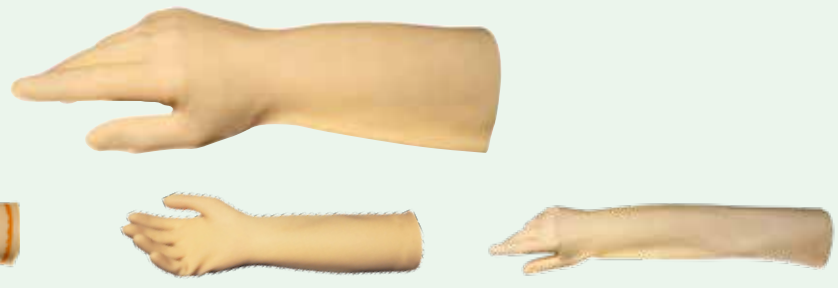
CAT 3

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 11**	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

EN ISO 374-1:2016 TYPE B
KPT

EN ISO 374-5:2016

EN421

CAT 3

EN388:2016
1110X

EN ISO 374-1:2016 TYPE B
KST

EN ISO 374-5:2016

Logistic information

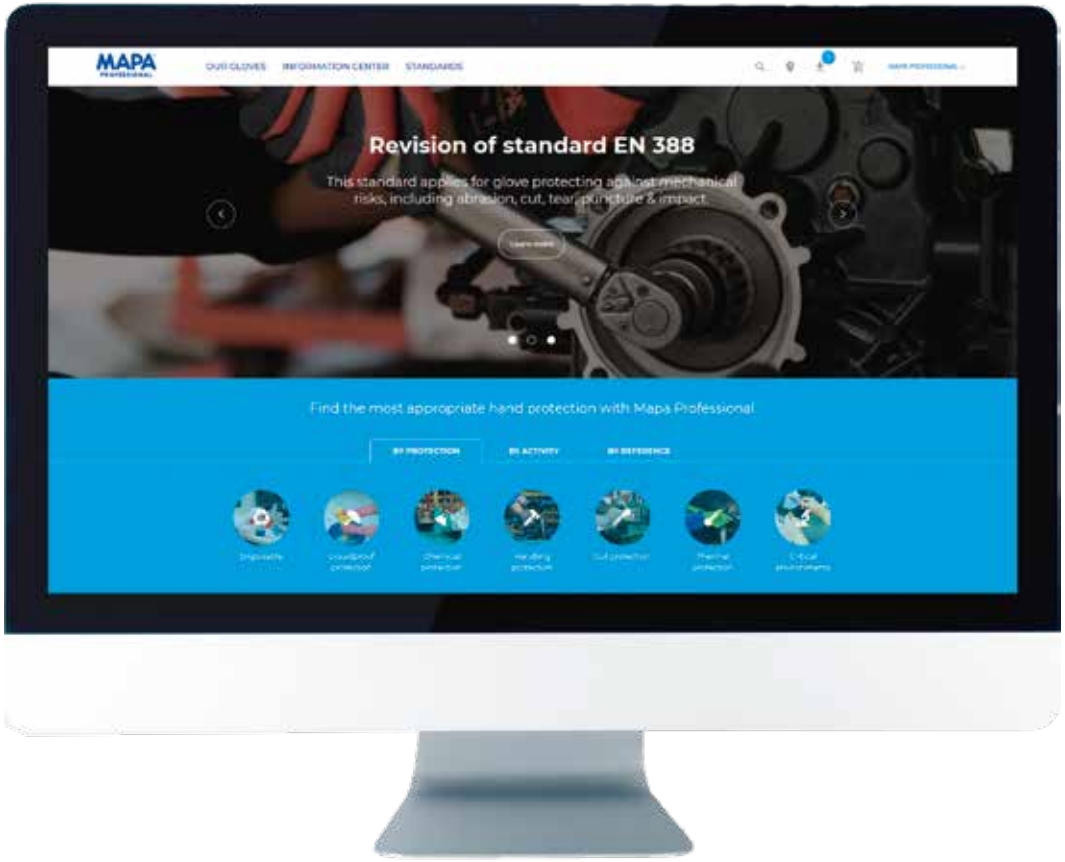
References	Pair/ Bag	Pairs/ Masterbag	Pairs/ Carton
115	1	10	100
117	1	10	100
124	1	10	100
165	1	10	100
174	1	10	100
175	1	10	100
177	1	10	100
180	1	10	100
181	1	10	100
210	1	10	100
258	1	10	100
260	1	10	50
285	1	NA	30
298	1	5	50
299	1	5	50
300	1	5	50
301	1	5	50
307	1	5	50
308	1	5	50
315	1	5	50
319	1	5	50
321	1	NA	50
325	1	5	50
328	1	12	96
330	1	5	50
332	1	NA	6
339	1	NA	6
340	1	5	50
341	1	5	50
344	1	NA	1
351	12	NA	72
361	5	NA	50
375	1	5	50
376	1	5	50
377	1	5	50
380	1	6	48
381	12	NA	72
382	12	NA	72
383	10	NA	100
385	10	NA	100
388	10	NA	100
391	10	NA	100
392	10	NA	100
393	10	NA	100
395	2	NA	12
397	1	10	100
401	1	10	100
405	1	10	100
407	1	6	48
414	1	NA	12
415	1	10	100
420	1	10	100
450	1	10	50
454	1	NA	50
468	1	NA	1
472	10	NA	100
475	1	12	72
476	2	NA	6
480	1	NA	12
487	10	NA	100
485	12	NA	72
491	10	NA	50
492	1	10	100
493	1	10	50
495	1	10	100

References	Pair/ Bag	Pairs/ Masterbag	Pairs/ Carton
500	1	12	96
510	1	12	96
511	1	12	96
513	50	NA	200
520	1	10	100
525	1	12	96
526	1	12	96
529	100	NA	1 000
531	1	12	48
532	6	NA	72
532 S	6	NA	72
533	6	NA	48
538	6	NA	48
540	1	NA	100
541	12	NA	96
547	1	12	48
548	1	12	96
549	1	12	96
550	10	NA	100
551	10	NA	100
553	1	10	100
557	1	10	50
558	1	12	96
562	10	NA	100
563	1	12	96
579	12	NA	96
580	1	12	48
581	1	12	48
582	12	NA	48
583	12	NA	48
584	1	12	96
585	12	NA	48
586	1	12	48
588	1	12	48
599	1	12	48
600	1	12	48
601	12	NA	48
610	1	12	48
615	12	NA	48
622	12	NA	48
650	1	NA	6
651	1	NA	6
700	1	12	72
710	1	10	50
720	1	12	72
726	50	NA	200
770	1	NA	48
832	1	12	72
833	10	NA	100
836	1	12	48
838	1	NA	10
840	1	12	72
850	1	12	48
851	1	12	48
967	100	NA	1 000
977	100	NA	1 000
980	100	NA	1 000
990	100	NA	1000
992	100	NA	1000
994	100	NA	1 000
995	100	NA	1 000
996	100	NA	1 000
997	100	NA	1 000
998	100	NA	1 000
999	100	NA	1 000

Notes

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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