

Protective Gloves Catalogue



A solution
for every
hand
that works



MAPA[®]
PROFESSIONNEL
for the job in hand, there is a Mapa glove

Because every company faces different risks,

Mapa Professionnel has a wide range of protective gloves

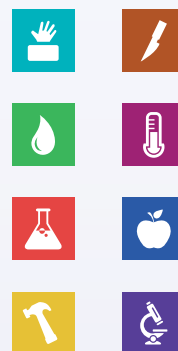
New materials, processes and finishes... Mapa Professionnel gloves are designed to overcome the constraints of the professional and industrial world, as well as to meet increasing demands for protection and comfort:

- | | | |
|---|--|-------|
|  | Disposable
Disposable gloves to protect hands and products during delicate work. | P. 6 |
|  | Liquidproof Protection
For prolonged contact with mildly aggressive liquids. | P. 8 |
|  | Chemical Protection
A solution for every chemical risk situation when handling more or less aggressive products | P. 10 |
|  | Handling Protection
To resist injuries endured during general handling work (precision work/heavy-duty work). | P. 16 |
|  | Cut Protection
To provide hand comfort and protection specially designed for various types of work involving cutting hazards. | P. 20 |
|  | Thermal Protection
For any work requiring thermal protection in a hot or cold environment | P. 24 |
|  | Food Expert
To provide an appropriate response to each application in the food industry and ensure maximum hygiene. | P. 26 |
|  | Critical Environments
To ensure the protection of both operators and the products they handle in controlled or confined environments | P. 30 |

This catalogue has been the product that gives you

> STEP 1:

identify your protection needs:



> STEP 2:

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

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

Cut Protection

PRECISION WORK - THE KRY RANGE



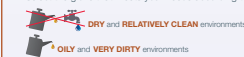
The Mapa Professionnel range of cut-protection gloves provides excellent hand comfort and protection specially designed for various types of work involving cut hazards.

YOUR NEED

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.

> THE ENVIRONMENT:

Select the glove that meets your needs according to your working environment:



> THE 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.

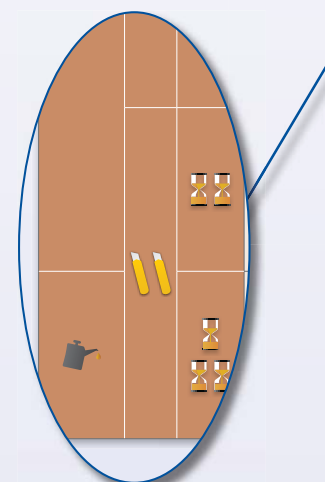


> THE SERVICE LIFE OF a glove for precision work is directly linked to the thickness of the polymer layer covering the fabric and the nature of the fabric, in a given environment.

> 1 >> 2 >>> 3

3 GIVING THE MOST PROTECTION

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 15507 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.



For more information
and to download the data sheets for all of our products
www.mapa-pro.com

A solution for every hand that works

designed to help you find
the protection you need.

STEP 2			STEP 3						
ENVIRONMENT	RISK	SERVICE LIFE	GLOVE	DESCRIPTION	STANDARDS	SIZE	LENGTH	INTERIOR/ EXTERIOR FINISH	APPLICATIONS
				Moderate protection for dry irritants, handling in reasonably clean environments	4343 ISO 13997: 5.2 N CAT 2		23-27 cm	Smooth nitrile support from HCFE fibres	Automotive/mechanical industry: - Assembling thin metal sheets - Automotive assembly - Finishing work - Handling and sorting small, sharp parts - Handling of small, sharp parts or sheet metal - Precision assembly Paper industry: - Handling cardboard and paper
				Moderate protection for irritants, handling in reasonably clean environments	4343 ISO 13997: 5.1 N CAT 2	6 7 8 9 10 11	23-27 cm	Smooth nitrile support from HCFE fibres	Automotive/mechanical industry: - Finishing work - Handling and sorting small, sharp parts Construction industry: - Carpentry - Timber assembly/working - Laying of steel structures/formwork/tilwork - Shoring engineers/plumbers - Handling metal parts - Photo/finishing - Handling cutting tools - Photo/finishing/finishing - Handling and laying tiles, inserts, frames or zinc plating Paper industry: - Handling cardboard and paper
				Moderate protection and durability for irritants, handling in reasonably clean environments	4343 ISO 13997: 5.1 N CAT 2	7 8 9 10 11	23-27 cm	Smooth nitrile support from HCFE fibres	Automotive/mechanical industry: - Pressing metal, handling metal sheets Construction industry (Metalworkers/Carpenters): - Handling sheet metal - Working on panels and fittings Mechanical industry: - Waste collection and handling Paper industry: - Handling cardboard and paper
				Moderate protection and durability for irritants, handling in dry environments	4343 ISO 13997: 5.2 N CAT 2	8 9 10 11	23-27 cm	Seamless textile support from HCFE fibres	Automotive/mechanical industry: - Mechanical maintenance - Stacking oily panels Construction industry: - Handling metal, handling metal sheets Paper industry: - Handling cardboard and paper Other industries: - Waste collection and handling
				High-performance protection for irritants, handling in reasonably clean environments	4343 ISO 13997: 15 N CAT 2	6 7 8 9 10 11	24-30 cm	Seamless textile support from HCFE fibres	Automotive/mechanical industry: - Assembling thin metal sheets - Finishing work on sharp-edged parts - Handling metal parts Construction industry (Roofers/Tilers/Glassworkers): - Handling metal, handling metal sheets Local authorities (City workers): - Maintenance work with risk of cuts Plastics industry: - Post-injection material removal Paper industry: - Cutter work
				High-performance protection for irritants, handling in dry environments	4343 ISO 13997: 15.1 N CAT 2	7 8 9 10 11	23-27 cm	Seamless textile support from HCFE fibres	Automotive/mechanical industry: - Mechanical maintenance work - Pressing metal, handling metal sheets - Sorting small parts - Stacking oily panels Glass industry: - Handling glass sheets Local authorities (City workers): - Maintenance work with risk of cuts Plastics industry: - Post-injection material removal Paper industry: - Cutter work Other industries: - Maintenance in wet environments - Maintenance

> STEP 3:
Select the most appropriate reference to meet your needs with the help of the technical characteristics table.

	Moderate protection and durability for irritants, handling in dry environments	4343 ISO 13997: 5.2 N CAT 2	8 9 10 11	23-27 cm	Seamless textile support from HCFE fibres	Automotive/mechanical industry: - Mechanical maintenance - Pressing metal, handling metal sheets - Sorting small parts - Stacking oily panels Glass industry: - Handling glass sheets Local authorities (City workers): - Maintenance work with risk of cuts Plastics industry: - Post-injection material removal Paper industry: - Cutter work Other industries: - Maintenance in wet environments - Maintenance
	High-performance protection for irritants, handling in reasonably clean environments	4343 ISO 13997: 15 N CAT 2	6 7 8 9 10 11	24-30 cm	Seamless textile support from HCFE fibres	Automotive/mechanical industry: - Assembling thin metal sheets - Finishing work on sharp-edged parts - Handling metal parts Construction industry (Roofers/Tilers/Glassworkers): - Handling metal, handling metal sheets Local authorities (City workers): - Maintenance work with risk of cuts Plastics industry: - Post-injection material removal Paper industry: - Cutter work
	High-performance protection for irritants, handling in dry environments	4343 ISO 13997: 15.1 N CAT 2	7 8 9 10 11	23-27 cm	Seamless textile support from HCFE fibres	Automotive/mechanical industry: - Mechanical maintenance work - Pressing metal, handling metal sheets - Sorting small parts - Stacking oily panels Glass industry: - Handling glass sheets Local authorities (City workers): - Maintenance work with risk of cuts Plastics industry: - Post-injection material removal Paper industry: - Cutter work Other industries: - Maintenance in wet environments - Maintenance

European legislation and standards

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 89/868/EEC** lays down the essential requirements for marketing protective gloves within the European Union. **The whole Mapa Professional range is certified in compliance with these essential requirements, and is labelled with the CE-marking.**

CE certification categories

- **Category 1:** The manufacturer is responsible for the conformity of its products with respect to the essential requirements of the Directive.
- **Category 2:** Certificate of conformity obtained from a notified body.
- **Category 3:** Certificate of conformity and regular production inspections on the manufacturer's premises by the notified bodies.

Pictograms

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

MECHANICAL HAZARDS EN 388

PERFORMANCE LEVELS*
0-4 0-5 0-4 0-4

└─ Abrasion resistance
└─ Tear resistance
└─ Puncture resistance
└─ Blade cut resistance

IMPORTANT INFORMATION

SPECIFIC CHEMICAL PROTECTION EN 374

Letter Code Chemical product

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

GENERAL CHEMICAL PROTECTION EN 374

MICRO-ORGANISMS EN 374

RADIOACTIVE CONTAMINATION EN 421

HEAT AND FIRE EN 407

PERFORMANCE LEVELS*
0-4 0-4 0-4 0-4 0-4 0-4

└─ Contact heat resistance
└─ Convective heat resistance
└─ Radiant heat resistant
└─ Resistance to small drops of molten metal
└─ Resistance to large quantities of molten metal

COLD HAZARDS EN 511

PERFORMANCE LEVELS*
0-4 0-4 0 or 1

└─ Contact cold resistance
└─ Resistance au froid convectif
└─ Water permeability

* Level X: the test is not applicable or the glove has not been tested.
European pictograms

UNDERSTAND THE SPECIFIC CHARACTERISTICS of a glove in order to make the best choice.

4

> Why opt for one type of wrist finish rather than another?

Because wrist finishes are designed according to the type of use and precise characteristics.

Safety cuff

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

Knitted wrist

Fitted to the hand and protects the wrist.

Straight cuff

Better hand ventilation.

Rolled cuff

Increased resistance to tearing when putting gloves on.

Scalloped cut

Longer-lasting glove.



> What shape, size or thickness?

Glove lengths.

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 sizes.

This depends on the circumference of the user's palm, and varies from size 6 to 11. To be comfortable during use, a glove needs to be the correct size.

Glove thickness.

This influences the user's dexterity and the glove's performance. It varies from 0.08 to 2.5 mm.



> Anatomical or ambidextrous glove?

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

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



> The various interior finishes

Powdered

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

Chlorinated

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.

Flocked

Cotton-based textile fibres, covering the inside of the gloves. Fleeced feel providing good absorption of perspiration.

Textile support

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

The different textile types

Cotton: Comfort, thermal insulation and absorption of perspiration.

Polyamide: Optimised dexterity (fine, seamless).

Para-aramide: Cut and heat-resistant.

High density polyethylene: Cut-resistant and optimised dexterity (PEHD).

> How to choose the appropriate exterior finish?

Smooth



does not mark the objects handled

Embossed texture



excellent grip in oily environments

Pebbled



good grip and minimal glove fouling

Reinforced grip



excellent grip in wet environments

Grip and proof



Excellent grip in oily environments combined with liquidproof protection

Dots



improved thermal insulation

Disposable



Mapa Professionnel offers a range of disposable gloves to meet your needs, regardless of your working environment.

The use of different polymers makes it possible to optimise glove performance and ergonomics: flexibility, sturdiness, comfort, etc.

HOW CAN YOU REFINE YOUR CHOICE?

> POLYMERS

PVC mechanical resistance and price

LATEX flexibility and comfort

NITRILE mechanical resistance and resistance to oils

TRIPOLYMER flexibility, mechanical resistance and chemical resistance to splashes.

> INTERIOR FINISHES

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

POWDERED Better absorption of perspiration

CHLORINATED Gloves are quick to put on and no traces of powder are left on the hands

> 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.

> 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.

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

To ensure consistent quality across the disposable range, these gloves are all of an Acceptable Quality Level (AQL).

POLYMER	COMFORT
PVC/VINYL	POWDERED
LATEX	CHLORINATED
	POWDERED
NITRILE	CHLORINATED
	POWDERED
TRIPOLYMER	CHLORINATED

GLOVE	DESCRIPTION	SIZE	LENGTH/ THICKNESS	INTERIOR/EXTERIOR FINISH	STAND- ARDS	APPLICATIONS
 SOLO 990	The best value for precise movements	6 7 8 9	24 cm / 0.10 mm	Powdered/Smooth	  CAT 3	Automotive/mechanical industry: - Assembly of small parts
 SOLO EXTRA 998	Optimal flexibility and dexterity	6 7 8 9	30 cm / 0.10 mm	Chlorinated/Smooth with pebbled fingertips	  CAT 3	Automotive/mechanical industry: - Assembly of small, oil and grease free parts Health: - Common tasks in hospitals and clinics Laboratory: - Medicine manufacturing - Pharmaceutical preparation - Research, analysis, manipulation of precision parts
 ■ SOLO 995						
 SOLO 992			Powdered/Smooth	  CAT 3		
 SOLO ULTRA 999	Excellent mechanical resistance, ideal in oily environments	6 7 8 9	30.5 cm / 0.10 mm	Chlorinated/Smooth with pebbled fingertips	  CAT 3	Aeronautics industry: - Work with composite materials (resins) Automotive/mechanical industry: - Assembly of small oily parts Laboratory: - Medicine manufacturing - Pharmaceutical preparation - Research, analysis, manipulation of precision parts
 ■ SOLO 997	Ideal protection for light handling in oily environments	6 7 8 9	24.5 cm / 0.10 mm			
 SOLO ULTRA 996	Excellent mechanical resistance, ideal in oily environments	6 7 8 9	25.5 cm / 0.15 mm	Chlorinated/Pebbled	  CAT 3	
 TRILITES 994	Tripolymer formula for protection against chemical splashes					

Liquidproof Protection



This line meets hand comfort and protection needs for all work involving liquids with a low chemical aggression factor: water, cleaning products, etc.

PERFORMANCE INDICATORS

To choose the most suitable product for your needs, we suggest you take into account two criteria:

> PROTECTION:

The performance level of a liquidproof glove is directly linked to your working environment.

The greater the risk, the stronger your gloves need to be and the longer they need to protect you.

- **LIGHT PROTECTION**
use in light aggressive environments (cleaning products, water, etc.)
- **STANDARD PROTECTION**
use in aggressive environments (detergents, etc.)
- **HIGH-LEVEL PROTECTION**
use in aggressive environments (handling of heavy, slippery and rough objects, concentrated detergents, etc.)

> WEAR TIME:

This criteria 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-TERM USE

(opt for a chlorinated interior finish)



INTERMITTENT USE

(opt for a flocked interior finish)



CONTINUOUS USE

(opt for a fabric-lined finish to limit the effects of perspiration)

PROTECTION	WEAR TIME
LIGHT	
STANDARD	
HIGH-LEVEL	

GLOVE	DESCRIPTION	SIZE	LENGTH/ THICKNESS	MATERIAL/ INT. FINISH/ EXT. FINISH	STANDARDS	APPLICATIONS	
 <p>SUPERFOOD</p> <p>174 175 177</p>	Dexterity and flexibility in non-aggressive environments	7 8 9	31 cm / 0.45 mm	Latex/chlorinated/ pebbled	  0010   CAT 3	Food industry: - Common cleaning tasks - Handling and preparation <i>see Food Expert range</i> Local authorities (Cleaning): - Handling of household detergents Mechanical industry: - Assembly of small, oil and grease free parts	
		7 8 9 10	31 cm / 0.40 mm	Latex/chlorinated/ embossed texture			
		6 7 8 9 10	31 cm / 0.29 mm	Latex/flocked/ embossed texture			
 <p>OPTINIT 472</p>	Fingertip precision for light chemical protection and food handling	6 7 8 9 10	31 cm / 0.20 mm	Nitrile/ chlorinated/ pebbled	  3001   CAT 3	Construction industry (Carpentry/Joinery): - Handling of PVC adhesives - Preparation of filler and varnishes Food industry: - Food handling and preparation <i>see Food Expert range</i> Mechanical industry: - Assembly of small oily parts - Machining parts using cutting oil - Precision assembly	
 <p>VITAL</p> <p>115 124 117</p> <p>VITAL ECO 125</p> <p>new</p>	Precision dexterity in non-aggressive environments	6 7 8 9	30.5 cm / 0.38 mm	Latex/flocked/ embossed texture	  1010   CAT 3	Food industry: - Common cleaning tasks Local authorities (Cleaning): - Handling of household detergents Mechanical industry: - Assembly of small, oil and grease free parts Local authorities (Cleaning): - Handling of household detergents Mechanical industry: - Assembly of small, oil and grease free parts	
		6 7 8 9 10					31 cm / 0.29 mm
		6 7 8 9 10	31 cm / 0.40 mm				Latex blended nitrile/flocked/ embossed texture
 <p>DUO-NIT</p> <p>180 181</p>	Dexterity and better resistance to oils and greases	6 7 8 9 10 7 8 9	31 cm / 0.40 mm	Latex blended nitrile/flocked/ embossed texture	  2110   CAT 3	Mechanical industry: - Assembly of small oily parts Other industries: - Cleaning and general maintenance in wet environments	
 <p>JERSETLITE 307</p>	Exceptional comfort and precision dexterity in light aggressive environments	5 6 7 8 9	31 cm / 0.75 mm	Latex/ textile support/ pebbled	  2121 X1XXXX CAT 2	Local authorities (Cleaning): - Handling of household detergents Local authorities (Site visits): - Minor general maintenance tasks	
 <p>MEDIO 210</p>	Effective response to contact with aggressive detergents	6 7 8 9	32 cm / 0.50 mm	Latex/flocked/ embossed texture	  1110   CAT 3	Mechanical industry: - Assembly of small, oil and grease free parts - Minor maintenance tasks	
 <p>OPTIMO 454</p>	Precision dexterity in mildly aggressive environments, for those sensitive to natural latex	6 7 8 9 10	31 cm / 0.35 mm	Synthetic material/flocked/ embossed texture	  3000   CAT 3	Health: - Common tasks in hospitals and clinics Local authorities (Cleaning): - Handling of household detergents	
 <p>JERSETTE</p> <p>300 301</p>	Maximum comfort for long-term work in aggressive environments	5 6 7 8 9 10	29-33 cm / 1.15 mm	Latex/ textile support/ smooth	  3141   X1XXXX CAT 2	Aeronautics industry: - Work with composite materials (resins) Construction industry (Masonry/Plastering): - Preparing and pouring mortar and cement Local authorities (Cleaning): - Handling of household detergents	
		6 7 8 9 10	32 cm / 0.60 mm	Latex/flocked/ embossed texture			  2120   CAT 3
 <p>ALTO 258</p>	Strong protection against aggressive concentrated detergents	6 7 8 9 10	32 cm / 0.60 mm	Latex/flocked/ embossed texture	  2120   CAT 3	Aeronautics industry: - Work with composite materials (resins) Chemical industry: - Common handling tasks Mechanical industry: - Assembly of small, oil and grease free parts - Minor maintenance tasks	
 <p>DUO-MIX 405</p>	Precision dexterity in aggressive environments	6 7 8 9 10	33 cm / 0.70 mm	Latex blended neoprene/ flocked/ embossed texture	  2120   CAT 3	Aeronautics industry: - Work with composite materials (resins) Automotive/mechanical industry: - Spray painting Other industries: - Industrial cleaning, maintenance	
 <p>HARPON</p> <p>321 325</p>	Comfort and safety when gripping heavy, rough or slippery objects in highly aggressive environments	6 7 8 9 10	32 cm / 1.35 mm	Latex/textile support/ reinforced grip	  4131   X2XXXX CAT 2	Fishing: - Fish-handling - Oyster farming - Work with frozen products	
		8 9 10	37 cm / 1.35 mm				

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 more or less aggressive products (oils, acids, solvents, etc).

More than 100,000 chemical substances are now classified, and can be identified, due to their unique CAS numbers.

In order to meet the diversity of hazardous situations that exist, Mapa Professionnel propose a wide range of protective gloves designed using polymers, which, due to their intrinsic nature, will behave differently with respect to the same chemical product.



Refer to our dynamic database, which is constantly updated, and download the chemical resistance tables for our gloves.

www.mapa-pro.com

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.

SELECT THE MOST APPROPRIATE CHEMICAL GLOVE FOR YOUR NEEDS, USING THE THREE STEPS BELOW:

STEP 1: Identify which family of chemical products the substance you are handling belongs to.

STEP 2: Determine the most appropriate protective material for your specific application.

STEP 3: Choose your gloves according to the level of protection you require.

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 the materials when confronted with the various families of chemical products.

The tests measure:

> **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.

> **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.).

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

STEP 1

YOU ARE HANDLING

Alcohols

[methanol 100%]

Ketones

[acetone 100%]

Nitriles

[acetonitrile methyl cyanide 99%]

Chlorinated solvents [methylene chloride/dichloromethane 99%]

Sulphur-based chemicals

[carbon disulphide 100%]

Aromatic solvents

[toluene 100%]

Amines

[diethylamine 98%]

Ethers

[tetrahydrofurane (THF) 100%]

Esters

[ethyl acetate 99%]

Aliphatic solvents

[heptane 99%]

Alkalis

[sodium hydroxide (soda) 40%]

Oxidising acids

[sulphuric acid 96%]

SOME COMMON PRODUCTS

Butoxy-2-propanol 100%

Acetic acid 10%

Benzene 99%

Cutting, lubricating or hydraulic oils

Methyl methacrylate 100%

Methyl Ethyl Ketone [butanone] (MEK) 100%

N,n-dimethylacetamide 99%

Methyl tert-butyl ether (MTBE) 100%

2,4-Toluene diisocyanate (TDI) 100%

A COMPLETE RANGE CLASSIFIED BY POLYMER

MAPA'S RECOMMENDATION

Light protection ●



Optimal protection ●●●

STEP 2

CAS	EN374	PVC	LATEX	NITRILE	NEOPRENE	BUTYL	FLUOROELASTOMER
Common polymers*						Specific polymers**	
67-56-1	A	●	●	●●	●●	●●●	●●
67-64-1	B		●		●	●●●	
75-05-8	C				●	●●●	●
75-09-2	D				●		●
75-15-0	E			●		●	●●●
108-88-3	F	●		●●	●		●●●
109-89-7	G			●			●●
109-99-9	H			●	●	●	●
141-78-6	I			●	●	●●●	●
142-82-5	J		●	●●●	●●	●	●●●
1310-73-2	K	●●	●●●	●●●	●●●	●●●	●●●
7664-93-9	L	●●	●●	●●	●●●	●●●	●●●
5131-66-8			●	●●	●●	●●●	●
64-19-7		●●	●●●	●●●	●●●	●●●	●●●
71-43-2			●	●	●		●●●
		●		●●●	●●	●●	●●●
80-62-6				●	●	●●	●
78-93-3			●		●	●●●	
127-19-5			●	●	●●	●●●	●
1634-04-4				●●●			●
584-84-9			●	●●●	●●●		●●●
STRENGTHS		<ul style="list-style-type: none"> Value for money Mechanical resistance 	<ul style="list-style-type: none"> Excellent flexibility Good puncture and tearing resistance Suitable for cold environments 	<ul style="list-style-type: none"> Good puncture and abrasion resistance No risk of protein-related allergies 	<ul style="list-style-type: none"> Good flexibility Good thermal resistance 	<ul style="list-style-type: none"> Excellent chemical resistance Flexible and elastic 	<ul style="list-style-type: none"> High chemical resistance
RESTRICTIONS		<ul style="list-style-type: none"> Not suitable for handling hot parts 	<ul style="list-style-type: none"> Risk of allergies caused by the proteins in the natural latex 	<ul style="list-style-type: none"> Not recommended for cold environments 	<ul style="list-style-type: none"> Poor mechanical properties 	<ul style="list-style-type: none"> Poor mechanical properties 	

* The most frequently used materials for chemical protection gloves.

** This target protection against certain families of aggressive chemicals. They are generally more expensive than common materials.

STEP 3

PVC/LATEX

MATERIAL	WEAR TIME	GLOVE	DESCRIPTION	SIZE	LENGTH/THICKNESS	INTERIOR/EXTERIOR FINISH	STANDARDS	APPLICATIONS
PVC		TELSOL 361	Long-lasting mechanical protection against low risk of chemical hazards	9 10	35 cm / 1.3 mm	Textile support/pebbled	 4121 AKL CAT 3	Petrochemical industry: - Maintenance and handling Chemical industry: - Handling drums of chemical products Other industries: - Cleaning and general maintenance in wet environments
		TELBLUE 351	Comfort, flexibility and mechanical protection for low chemical hazards	8 9 10	30 cm / 1.5 mm		 4121 AKL CAT 3	Mechanical industry: - Maintenance work in wet environments Pharmaceutical industry: - Maintenance and cleaning Other industries: - Servicing and maintenance work in wet environments
LATEX		INDUSTRIAL 298	Good mechanical performance for long-lasting chemical protection	8 9 10	42 cm / 1 mm	Chlorinated/smooth	 4131 AKL CAT 3	Mechanical industry: - Maintenance work in wet environments (water, oil, hydrocarbons, etc.) Pharmaceutical industry: - Maintenance and cleaning Other industries: - Servicing and maintenance work in wet environments
		TRIDENT 285			60 cm / 1 mm		 2131 ABKL CAT 3	
		INDUSTRIAL 299		7 8 9 10	31 cm / 0.9 mm	Flocked/embossed texture	 3120 AKL CAT 3	
		TECHNI-MIX 415		6 7 8 9 10 11	32 cm / 0.6 mm		 2011 AKL CAT 3	

PERFORMANCE INDICATORS

> **THE 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:



SPLASH-PROTECTION



FREQUENT CONTACT



PROLONGED CONTACT (even in immersion)

> **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-TERM USE
(chlorinated interior finish)



CONTINUOUS USE
(textile support)





































INTERMITTENT USE
(flocked interior finish)



ULTRA COMFORT
(Exclusive MAPA Technology for increased flexibility)









NITRILE

RISK	WEAR TIME	GLOVE	DESCRIPTION	SIZE	LENGTH/ THICKNESS	INTERIOR/ EXTERIOR FINISH	STAND- ARDS	APPLICATIONS
			Fingertip precision for light chemical protection	6 7 8 9 10	32 cm / 0.3 mm	Chlorinated/ embossed texture	 3101  JKL  CAT 3	Mechanical industry: - Handling and assembly of small oily parts - Machining parts using cutting oil - Precision assembly Other industries: - Spray-painting
			Good sensitivity for standard chemical protection	6 7 8 9 10 11	31 cm / 0.34 mm	Flocked/ embossed texture	 4101  JKL  CAT 3	Mechanical industry: - Machining parts using cutting oil Chemical industry: - Manufacture and application of paints and varnishes Other industries: - Application of pesticides - Timber treatment and finishing - Maintenance
			Good mechanical resistance and long-lasting chemical protection	6 7 8 9 10	37 cm / 0.38 mm		 4101  AJKL  CAT 3	Mechanical industry: - Machining parts using cutting oil - Treating/degreasing metals with solvents Chemical industry: - Manufacture and application of paints and varnishes Other industries: - Application of pesticides - Timber treatment and finishing - Maintenance - Cleaning of printing-press rollers
			Good mechanical resistance and long-lasting chemical protection	6 7 8 9 10 11	32 cm / 0.38 mm	Textile support/ smooth	 4123  AJKL  X1XXXX CAT 3	Automotive/mechanical industry: - Automotive assembly - Machine tool manufacture - Surface treatment Chemical industry: - Chemical product blending - Handling and transporting drums of chemical products - Manipulating valves - Unloading fuel and cleaning tanks - Manufacturing paints and varnishes Other industries: - Industrial cleaning and print-press cleaning - Heavy-duty packaging
			Comfort and reinforced mechanical resistance for long-lasting chemical protection	7 8 9 10	38 cm / 1.3 mm		 3121  AJKL   X1XXXX CAT 3	Automotive/mechanical industry: - Automotive assembly - Part degreasing - Surface treatment Chemical industry: - Chemical product blending - Handling drums of chemical products - Manipulating valves Other industries: - Laboratory tests - Machine maintenance
			Ultra-long chemical protection	7 8 9 10	46 cm / 0.55 mm	Chlorinated/ embossed texture	 4102  AJKL  CAT 3	Automotive/mechanical industry: - Treating/degreasing metals with aggressive solvents Chemical industry: - Handling drums of chemical products Other industries: - Application of pesticides - Cleaning of printing-press rollers - Maintenance - Timber treatment and finishing
				7 8 9 10	39 cm / 0.55 mm	Flocked/ embossed texture		

NEOPRENE

RISK	WEAR TIME	GLOVE	DESCRIPTION	SIZE	LENGTH/ THICKNESS	INTERIOR/ EXTERIOR FINISH	STAND- ARDS	APPLICATIONS
		 TECHNIC 401	Tactile sensitivity for light chemical protection	7 8 9 10	31 cm / 0.55 mm	Flocked/ embossed texture	 2110 AKL CAT 3	Mechanical industry: - Spray-painting - Battery manufacturing Construction industry: - Finishing work, jointing, etching Other industries: - Industrial cleaning - Maintenance - Preparation of industrial glues
		 NEOTEX 340	Comfort with light chemical protection	7 8 9 10	38 cm / 1.15 mm	Textile support/ smooth	 3121 GKL X1XXXX CAT 3	Mechanical industry: - Battery, pump and compressor manufacturing Chemical industry: - Handling and transporting chemicals Other industries: - Industrial cleaning, maintenance - Timber treatment
		 TECHNIC PLUS 420 TECHNIC PLUS 450	Extremely supple with freedom of movement for standard chemical protection	6 7 8 9 10	31 cm / 0.75 mm 41 cm / 0.75 mm	Flocked/ embossed texture	 3121 AJKL CAT 3	Automotive/mechanical industry: - Electric accumulator and battery manufacturing Chemical industry: - Handling, loading and unloading of chemicals Other industries: - Industrial cleaning, maintenance - Preparation of industrial glues - Spreading fertilizer
		 NEOTEX PLUS 341	Comfort with standard chemical protection	8 9 10	38 cm / 1.45 mm	Textile support/ smooth	 3221 ACKL X1XXXX CAT 3	Automotive/mechanical industry: - Electric accumulator and battery manufacturing Chemical industry: - Handling and transporting chemicals - Chemical treatment of metals Other industries: - Industrial cleaning, maintenance - Timber treatment
		 STANZOIL NK-22 382	Maximum comfort for standard chemical protection	6 7 8 9 10 11	35.5 cm / 0.9 mm	Mapa technology textile support/ embossed texture	 2121 ACKL X1XXXX CAT 3	Automotive/mechanical industry: - Engine part assembly - Surface treatment Chemical industry: - Chemical product blending - Handling drums of chemical products - Manipulating valves Other industries: - Laboratory tests - Machine maintenance
		 CHEM-PLY 407 CHEM-PLY 414	Ultra-high performance chemical protection	9 10	35.5 cm / 0.75 mm 45.5 cm / 0.75 mm	Chlorinated/ embossed texture	 3111 ABCJKL CAT 3	Mechanical industry: - Surface treatment of metals (acids) Chemical industry: - Handling on alkylation units - Galvanoplasty - Handling and transporting drums of chemical products - Site pollution control
		 CHEMZOIL 339	Comfort and high-level chemical protection	9 10	35.5 cm / 1.35 mm	Textile support/ pebbled	 3121 ABCJKL X1XXXX CAT 3	Automotive/mechanical industry: - Surface treatment of metals (acids) Chemical industry: - Handling on alkylation units - Hot, petrochemical product sampling - Resin-working - Handling and transporting drums of chemical products - Site pollution control

BUTYL/FLUOROELASTOMER

MATERIAL	WEAR TIME	GLOVE	DESCRIPTION	SIZE	LENGTH/THICKNESS	INTERIOR/EXTERIOR FINISH	STANDARDS	APPLICATIONS
BUTYL		 BUTOFLEX 651	Ultimate specific chemical resistance	6 7 8 9 10 11	35 cm / 0.5 mm	Chlorinated/embossed texture	 0111  ABCIKL  CAT 3	Chemical industry: - Formulating paints, varnishes, resins and inks - Handling and repackaging chemicals - Sampling chemicals Cosmetics and pharmaceutical industry: - Handling in laboratories Mechanical and electronic industry: - Metal treatment and degreasing
		 BUTOFLEX 650					 1122  ABCIKL  CAT 3	
FLUOROELASTOMER		 FLUONIT 468	Tactile sensitivity with wear-indicator	8 9 10	30 cm / 0.5 mm	Chlorinated/smooth	 4102  ADEFGJKL  CAT 3	Mechanical industry: - Metal degreasing and etching Chemical industry: - Manufacturing paints and varnishes - Chemical treatments (solvents) - Galvanoplasty - Resin and adhesive manufacturing - Handling and transporting chemicals (solvents) Other industries: - Printing - Petrochemical refining - Site pollution control
		 FLUOTEX 344	Comfort and flexibility for extended wear	9 10	37 cm / 1.5 mm	Textile support/smooth	 4241  ACDEFGJKL  X1XXXX  CAT 3	Mechanical industry: - Metal degreasing and etching Chemical industry: - Manufacturing paints and varnishes - Chemical treatments (solvents) - Galvanoplasty - Resin and adhesive manufacturing - Handling and transporting chemicals (solvents) Other industries: - Printing - Petrochemical refining - Site pollution control - Emergency interventions on chemical accidents

PERFORMANCE INDICATORS

> **THE 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:



SPLASH-PROTECTION



FREQUENT CONTACT



PROLONGED CONTACT (even in immersion)

> **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-TERM USE
(chlorinated interior finish)



CONTINUOUS USE
(textile support)



INTERMITTENT USE
(flocked interior finish)



ULTRA COMFORT
(Exclusive MAPA Technology for increased flexibility)

Handling Protection

PRECISION WORK



The Mapa Professionnel Handling Protection range provides the comfort and protection hands require to carry out a wide variety of work.

PERFORMANCE INDICATORS

We suggest that you select your gloves for precision work based on their service life in order to make your choice easier:

> **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.

> **1** >> **2** >>> **3**
3 GIVING THE MOST PROTECTION



To maximise safety and comfort, MAPA precision gloves are recommended for dry or dirty environments and for jobs that call for protection against mechanical aggressions.



GLOVE	DESCRIPTION	SIZE	LENGTH	INTERIOR/EXTERIOR FINISH	STANDARDS	APPLICATIONS
<p>ULTRANE LITE 548</p>  <p>ULTRANE LITE 549</p> 	Optimal dexterity and sensitivity for light protection	6 7 8 9 10 11	21–27 cm	Seamless textile support/ polyurethane coating on palm and fingers	 3121 CAT 2	<p>Automotive/mechanical industry:</p> <ul style="list-style-type: none"> - Intricate assembly - Sorting small parts - Fitting small screws and fasteners <p>Electronics:</p> <ul style="list-style-type: none"> - Assembly of electrical components - Microprocessor handling <p>Cosmetics and pharmaceutical industry:</p> <ul style="list-style-type: none"> - Medicine manufacturing - Cosmetics preparation
<p>ULTRANE 551</p>  <p>ULTRANE 550</p>  <p>Deko tex Standard 100 Compliance</p>	Unbeatable for fingertip precision	6 7 8 9 10 11 6 7 8 9 10	21–27 cm	Seamless textile support/ polyurethane coating on palm and fingers	 4131 CAT 2	<p>Automotive/mechanical industry:</p> <ul style="list-style-type: none"> - Intricate assembly - Sorting small parts - Fitting small screws and fasteners <p>Electronics:</p> <ul style="list-style-type: none"> - Electrical component assembly - Microprocessor handling - High-frequency antennae riveting <p>Cosmetics and pharmaceutical industry:</p> <ul style="list-style-type: none"> - Medicine manufacturing - Cosmetics preparation
<p>ULTRANE PERFORMANCE 553</p>  <p>ULTRANE PERFORMANCE 562</p> 	Unbeatable for fingertip precision in dirty environments	7 8 9 10 6 7 8 9 10	21–26 cm	<p>Seamless textile support/ Ventilated back: nitrile coating on palm and fingers</p> <p>Seamless textile support/ Nitrile coating with dot embossing on palm, fingers and partially on back</p>	 4121 CAT 2	<p>Automotive/mechanical industry:</p> <ul style="list-style-type: none"> - Intricate assembly - Screwing and bolting - Pump manufacturing - Precision assembly - Sorting small parts <p>Other industries:</p> <ul style="list-style-type: none"> - Minor maintenance tasks - Light handling in storage areas - Packaging activities

Handling Protection

HEAVY-DUTY WORK



The Mapa Professionnel Handling Protection range provides the comfort and protection hands require to carry out a wide variety of work.

PERFORMANCE INDICATORS

We suggest that you select your gloves for heavy-duty handling work based on 2 criteria in order to make your choice easier:

> Select the glove you need according to the **ENVIRONMENT** in which you work:



DRY environments










WET environments

> **SERVICE LIFE** combination of material and thickness of gloves to give a service life from 1 to 3.

> 1 >> 2 >>> 3
3 GIVING THE MOST PROTECTION



To maximise safety and comfort, nitrile gloves for heavy-duty work are recommended for dry or dirty environments.

ENVIRONMENT	SERVICE LIFE
	
	
	
	 

GLOVE	DESCRIPTION	SIZE	LENGTH	INTERIOR/EXTERIOR FINISH	STANDARDS	APPLICATIONS	
 <p>new</p> <p>TITAN SUPERLITE 833</p>	Comfort and dexterity for light handling tasks	7 8 9 10	26.5 cm	Textile support/ 3/4 nitrile coating	 4111 CAT 2	Automotive/mechanical industry: <ul style="list-style-type: none"> - Handling mechanical parts - Parts assembly - Precision mechanical work - Sanding Construction industry (Masonry/Plastering): <ul style="list-style-type: none"> - Handling of bricks and breeze blocks - Plastering Local authorities: <ul style="list-style-type: none"> - Handling materials for use during road works - Minor general maintenance tasks Other industries: <ul style="list-style-type: none"> - Construction material handling - Manufacturing small electrical components 	
 <p>DEXTRAM 375</p> <p>DEXTRAM 376</p> <p>DEXILITE 383</p>	Appropriate protection for all types of light handling activities	6 7 8 9	26 cm	Textile support/full nitrile coating	 3111 CAT 2	Automotive/mechanical industry: <ul style="list-style-type: none"> - Handling mechanical parts - Precision mechanical work Other industries: <ul style="list-style-type: none"> - Woodwork - Sanding - Packaging 	
		8 9	31 cm				
		7 8 9 10	26-29 cm				
 <p>TITANLITE 397</p>	Comfort and dexterity for common handling tasks	6 7 8 9 10	27-31 cm	Textile support/ 3/4 nitrile coating	 4121 CAT 2	Automotive/mechanical industry: <ul style="list-style-type: none"> - Precision mechanical work - Part assembly - Sanding - Handling mechanical parts Other industries: <ul style="list-style-type: none"> - Manufacturing small electrical components - Construction materials handling 	
 <p>TITAN 385</p> <p>TITAN 388</p> <p>TITAN 391</p> <p>TITAN 392</p>	Comfort and durability for heavy-duty work	8 9 10	24-26 cm	Textile support/ 3/4 nitrile coating	 4111 CAT 2	Mechanical industry: <ul style="list-style-type: none"> - Handling of thick, untrimmed sheet metal - Metal shearing or cutting Construction and public works: <ul style="list-style-type: none"> - Construction material handling - Metal construction Other industries: <ul style="list-style-type: none"> - Household waste collection - Forestry 	
		8 9 10		Textile support/full nitrile coating			
		7 8 9 10		24-27 cm			Textile support/ 3/4 nitrile coating
		8 9 10					Textile support/full nitrile coating
 <p>TITAN PLUS 393</p>	Optimised comfort and maximum durability for heavy-duty handling work	7 8 9	31 cm	Brushed cotton lining/ full nitrile coating	 4212  X1XXXX CAT 2	Mechanical industry: <ul style="list-style-type: none"> - Handling of thick, untrimmed sheet metal - Metal stamping Construction and public works: <ul style="list-style-type: none"> - Construction material handling - Metal construction Other industries: <ul style="list-style-type: none"> - Household waste collection - Forestry - Non-ferrous mineral mining 	
 <p>ENDURO 328</p>	Flexibility and grip for common handling tasks	7 8 9 10	24-27 cm	Seamless textile support/ non-slip natural latex coating on palm and fingers	 2142  X2XXXX CAT 2	Construction and public works: <ul style="list-style-type: none"> - Fibreboard handling - Construction material handling Environment: <ul style="list-style-type: none"> - Household waste collection - Public park maintenance Other industries: <ul style="list-style-type: none"> - Warehousing and receipt of goods 	
 <p>HARPON 319</p> <p>ENDURO 330</p>	Comfort, reinforced safety and excellent grip in wet environments	7 8 9	25-27 cm	Textile support/full reinforced natural latex coating	 2141  X2XXXX CAT 2	Construction and public works: <ul style="list-style-type: none"> - Fibreboard handling - Construction material handling Environment: <ul style="list-style-type: none"> - Public park maintenance - Forestry - Waste collection - Handling barbed wire Other industries: <ul style="list-style-type: none"> - Spreading fertilizer - Glass working - Quarrying - Wood working 	
		6 7 8 9		Textile support/reinforced natural latex coating on palm and fingers			

Cut Protection

PRECISION WORK - THE KRY RANGE



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

YOUR NEED

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.

> THE ENVIRONMENT:

Select the glove that meets your needs according to your working environment:



DRY and **RELATIVELY CLEAN** environments



OILY and **VERY DIRTY** environments

> THE 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.



MODERATE RISK



HIGH RISK

> **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.

> **1 >> 2 >>> 3**

3 GIVING THE MOST PROTECTION



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.

ENVIRONMENT	RISK	SERVICE LIFE

GLOVE	DESCRIPTION	STANDARDS	SIZE	LENGTH	INTERIOR/ EXTERIOR FINISH	APPLICATIONS
 <p>new KRYTECH 579</p>	Moderate protection for very intricate handling in reasonably clean environments	 4343 ISO 13997: 5.2 N CAT 2		22–27 cm	Seamless textile support from HDPE fibres/ Polyurethane on palm and fingers	Automotive/mechanical industry: - Assembling thin metal sheets - Automotive assembly - Finishing work - Handling and sorting small, sharp parts - Handling untrimmed parts or sheet metal - Precision assembly Paper industry: - Handling cardboard and paper
 <p>KRYTECH 557</p>	Moderate protection for intricate handling in reasonably clean environments	 4343 ISO 13997: 5.1 N CAT 2	6 7 8 9 10 11	22–27 cm		Automotive/mechanical industry: - Finishing work - Handling and sorting small, sharp parts Construction industry • (Carpentry/Joinery): - Timber assembly/cutting - Laying of steel structures/Screwing/Studwork • (Heating engineers/Plumbers): - Handling metal parts • (Painters/Decorators): - Handling cutting tools • (Roofers/Tilers/Glazers): - Handling and laying tiles, inserts, frames or zinc sheeting Paper industry: - Handling cardboard and paper
 <p>KRYNIT 563</p>	Moderate protection and durability for intricate handling in reasonably clean environments	 4343 ISO 13997: 5.8 N CAT 2	7 8 9 10 11	22–27 cm	Seamless textile support from HDPE fibres/ Nitrile on palm and fingers	Automotive/mechanical industry: - Mechanical maintenance - Pressing metal, handling metal sheets Construction industry (Metalworkers/ Locksmiths): - Handling sheet metal Environment: - Waste collection and handling Mechanical maintenance: - Handling cardboard and paper
 <p>KRYNIT 559</p>	Moderate protection and durability for intricate handling in dirty environments	 4343 ISO 13997: 8.2 N CAT 2	8 9 10 11	23–27 cm	Seamless textile support from HDPE fibres/Full nitrile coating	Automotive/mechanical industry: - Mechanical maintenance - Stacking oily panels - Pressing metal, handling metal sheets Paper industry: - Handling cardboard and paper Environment: - Waste collection and handling
 <p>new KRYTECH 586</p>	High-performance protection for intricate handling in reasonably clean environments	 4543 ISO 13997: 18 N CAT 2	6 7 8 9 10 11	24–30 cm	Seamless textile support from HDPE fibres/Polyurethane palm and fingers	Automotive/mechanical industry: - Assembling thin metal sheets - Finishing work on sharp-edged parts - Handling metal parts Construction industry (Roofers/Tilers/Glazers): - Handling and fitting windows Local authorities (Site visits): - Maintenance work with risk of cuts Plastics industry: - Post-injection material removal Paper industry: - Cutter work
 <p>new KRYNIT 582</p>	High-performance protection for intricate handling in oily environments	 4543 ISO 13997: 19.1 N CAT 2	7 8 9 10 11	23–27 cm	Seamless textile support from HDPE fibres/ 3/4 nitrile coating	Automotive/mechanical industry: - Mechanical maintenance work - Pressing metal, handling metal sheets - Sorting small parts - Stacking oily panels Glass industry: - Handling glass sheets Paper industry: - Cutter work Other industries: - Maintenance in wet environments - Maintenance

Cut Protection

HEAVY-DUTY HANDLING - THE KRO RANGE



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

YOUR NEED

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.

> THE ENVIRONMENT:

Select the glove that meets your needs according to your working environment:



DRY and **RELATIVELY CLEAN** environments



WET environments



OILY and **VERY DIRTY** environments

> THE RISK:

The higher the performance level, the better the glove resists the combined effects of the object's sharpness and the pressure applied.



MODERATE RISK



HIGH RISK

> SERVICE LIFE:

Combination of material and thickness of gloves to give a service life from 1 to 3.

> 1 >> 2 >>> 3

3 GIVING THE MOST PROTECTION



ENVIRONMENT	RISK	SERVICE LIFE

GLOVE	DESCRIPTION	STANDARDS	SIZE	LENGTH	INTERIOR/ EXTERIOR FINISH	APPLICATIONS
 KROTECH FOOD 828	Reinforced cut protection for the food industry Ambidextrous	 254X ISO 13997: 14.1 N CAT 2	7 8 9 10	27-33 cm	Seamless textile support from Spectra®	Food industry: - Cutting meat and fish - Deboning, slicing - Food handling <i>see Food Expert range</i>
 KRONIT 386	Moderate protection for heavy-duty handling in dry and relatively clean environments	ISO 13997: 11.3 N  4532	7 9	26-27 cm	Textile support made from para-aramide fibres/Full nitrile coating/Pebbled	Environment: - Sorting metal and plastic waste Mechanical industry: - Cutting and stamping work - Handling aluminium strips - Handling sharp sheet metal
 KRONIT 387		 CAT 2 ISO 13997: 12 N		31 cm	Textile support made from para-aramide and HDPE fibres/ Full nitrile coating/ Pebbled	
 KROMET 832	High-performance protection for handling heavy, sharp objects in dry and relatively clean environments	 4542  X1XXXX CAT 2 ISO 13997: 20.1 N	7 8 9 10 11	23-26cm	Seamless textile support from superior strength fibres/ Leather layer on palm with reinforced thumb/index	Automotive/mechanical industry: - Handling untrimmed parts - Handling parts post-press - Handling sheet metal - Metal working - Cutting strips (plasma, etc.)
 KROFLEX 840	High-performance protection for handling heavy or sharp objects in wet environments	 3543  X2XXXX ISO 13997: 20.4 N CAT 2	7 8 9 10 11		Seamless textile support from superior strength fibres/ Latex grip on palm and fingers/ Embossed texture	Ceramic and plastics industry, composite industries: - Handling of composite materials after heat processing - Post-injection handling of hot plastic parts Construction industry (Carpentry/Joinery): - Assembly - Timber cutting - Laying of steel structures - Screwing - Studwork
 KRONIT-PROOF 395	Long-lasting chemical protection and cut protection combined	 4543  JKL   X2XXXX ISO 13997: 14.6 N CAT 2	7 8 9 10	32 cm	Multi-layer technology: combination of superior strength fibres and nitrile/ Textile support	Automotive/mechanical industry: - Metal rolling, stamping and assembly - Sheet metal - Cutting aluminium strips Other industries: - Collection and sorting of industrial and household waste

*Honeywell registered brand

Thermal Protection



The Mapa Professionnel Thermal Protection range provides excellent comfort and protection to hands whenever work situations require.

PERFORMANCE INDICATORS

We suggest that you select your gloves based on three criteria in order to make your choice easier:

> TEMPERATURE:



PROTECTION AGAINST THE **COLD**



STANDARD PROTECTION UP TO 150 °C



HIGH-LEVEL PROTECTION ABOVE 150 °C

> ENVIRONMENT:

Select the glove that meets your needs according to your working environment:



DRY environments



WET environments



CHEMICAL environments



MODERATELY OILY environments

> CONTACT TIME:

Performance depends on the contact time with the part at a given temperature.



SHORT CONTACT



INTERMEDIATE CONTACT



PROLONGED CONTACT

	at 80 °C	at 100 °C	at 125 °C
SHORT CONTACT	70 s	30 s	20 s
INTERMEDIATE CONTACT	80 s	45 s	25 s
PROLONGED CONTACT	1 min 50	1 min	38 s

Take a look at the thermal insulation curves for all of our gloves at www.mapa-pro.com

THE TEMP-SEA GLOVE gives protection against both convective (or ambient) cold and contact cold. Ideal for handling cold objects in low temperature environments.

e.g. handling in cold storage rooms.

In addition, the Temp-Sea glove is **100% liquidproof** according to the EN 374 standard and is therefore **suitable for all dry or wet environments.**

TEMPERATURE	ENVIRONMENT	CONTACT TIME

PROTECTION AGAINST THE CO

GLOVE	DESCRIPTION	SIZE	LENGTH	MATERIAL/ INT. FINISH/ EXT. FINISH	STANDARDS	APPLICATIONS
 <p>new</p> <p>TEMP-DEX 710</p>	High dexterity and thermal protection	7 9 11	24-28 cm	Seamless textile support/Nitrile coating with dot embossing on palm and fingers	 4111  X1XXXX CAT 2	Ceramics and plastics industries, composite industries: - Handling of composite materials after heat processing Construction industry (Heating engineers/Plumbers): - Maintenance of pipes and ducts Other industries: - Handling of hot piping - Handling of hot steel after welding - Handling of moulds in the ceramic industry - Handling of sheet metal after hot stamping Maximum recommended temperature: 125 °C
 <p>new</p> <p>TEMP-DEX PLUS 720</p>	Dexterity and resistance to cuts for optimised thermal protection			Seamless textile support from aramide fibres/Nitrile coating with dot embossing on palm and fingers	 4343  X2XXXX CAT 2	Rubber industry: - Vulcanization, demoulding, calendaring, etc. Mechanical industry: - Working with hot, sharp and oily parts Other industries: - Handling of hot piping - Handling of hot steel after welding - Handling of moulds in the ceramic industry - Handling of metals after heat treatment Maximum recommended temperature: 125 °C
 <p>TEMP-COOK 476</p>	Hygienic with high-temperature thermal protection 100% liquidproof	9 11 12	45 cm	Knitted thermal protection / Embossed texture	 4443  AJKL  111  X2XXXX CAT 3	Bakeries: - Removing trays from ovens Catering industry: - Removing dishes from warming ovens - Removing hot dishes from ovens (wet or dry) - Removing objects from autoclaves or steam ovens Food industry: - Pre-cooking Local authorities (Catering): - Removing hot dishes from ovens (wet or dry) - Removing objects from autoclaves or steam ovens <i>see Food Expert range</i> Maximum recommended temperature: 150 °C
 <p>TEMP-TEC 332</p>	Effective thermal insulation and multi-purpose chemical resistance	8 9 10	35.5 cm	Neoprene/ Knitted thermal protection/ Pebbled	 2212  ACJKL  111  02XXXX CAT 3	Mechanical industry: - Chemical treatment of metals - Oil quenching of steel Petrochemical industry: - Hot, petrochemical product sampling Rubber industry: - Polymer extrusion Other industries: - Boiler room work - Handling of hot piping - Handling of moulds in the ceramic industry - Manufacture of adhesives - Manufacture of insulating electric wires - Road works - Steam cleaning Maximum recommended temperature: 175 °C
 <p>new</p> <p>TEMP-TECH 725</p>	A classic for thermal protection in dry environments	9 10		Seamless textile support from aramide and cotton fibres	 244X  X2XXXX CAT 2	Glass industry: - Handling glass sheets Other industries: - Heat treatment up to 250 °C (autoclaves, etc.) - Removal of parts from ovens, furnaces or autoclaves and sorting Maximum recommended temperature: 250 °C
 <p>TEMP-SEA 770</p>	Thermal insulation 100% liquidproof to protect from extreme contact cold	9 10	30 cm	Jersey support, lined with woollen fleece/ Pebbled	 4221   121 CAT 3	Fishing and work at sea: - Handling produce Transport: - Handling of liquids at low temperatures (water, oil, hydrocarbons, etc.) Other industries: - Handling in refrigerated or open-air warehouses - Maintenance in wet or cold environments

OLD

Food Expert Range



Compliance with hygiene rules is an essential requirement in the food industry. The industry continuously invests to 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 Professionnel 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 Professionnel aims to meet the strictest requirements of its customers' quality systems.

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.

MATERIALS GUIDE FOR DISPOSABLE AND LIQUIDPROOF GLOVES:

- > **Natural latex:** flexibility, comfort and value for money.
- > **Nitrile:** strength, durability, handling of oily foods and no risk of allergies.

FOOD GROUP

Drinks

Cereals, starch, sugar, chocolate and by-products

Fruits, vegetables and by-products

Fat and oils

Animal products and eggs

Dairy products

Dressing

Mixed food preparations

Others

● Adapted to 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 1















STEP 2

YOU ARE HANDLING	Solo 988 / 995	Solo 997	Solo 967	Superfood 177	Superfood 165	Jersette 308	Harpon 326	Optinit 472	Ultrafood 475/495	Temp-Cook 476	Krotech Food 828 *
Nonalcoholic beverages or alcoholic strength lower than 5% vol.	◐	●	◐	●	◐	●	●	●	●	●	x
More than 5% by vol.	◐	●	◐	●	◐	●	●	●	●	●	x
Starches ,cereals, flour, meal, pasta	●	●	●	●	●	●	●	●	●	●	●
Biscuits, pastry, cakes and other bakers' wares, dry, sugar and confectionery products in solid form; without fatty substances	●	●	●	●	●	●	●	●	●	●	●
Biscuits, pastry, cakes and other bakers' wares, dry, sugar and confectionery products in solid form; with fatty substances	●	●	●	●	●	●	●	●	●	●	x
Chocolate and substitutes, coated products	●	●	●	●	●	●	●	●	●	●	x
Pastry, cakes and other bakers' wares, dry, without fatty substances, confectionery products in moist paste form, honey, syrups	●	●	●	●	●	●	●	●	●	●	x
Confectionery products in paste form with fatty substances	●	●	●	●	●	●	x	●	●	●	x
Whole, fresh or chilled; dried or dehydrated; shelled or dried nuts	●	●	●	●	●	●	●	●	●	●	●
Processed: cut, in the form of purées, paste or preserved in an aqueous medium	◐	●	◐	●	◐	●	●	●	●	●	x
Processed in an alcoholic medium (> 5%Vol)	●	●	●	●	●	●	●	●	●	●	x
Processed in an oily medium	x	●	◐	x	x	x	x	●	●	●	x
Shelled and roasted nuts	●	●	●	●	●	●	●	●	●	●	●
Nuts in paste or cream form	●	●	●	●	●	●	x	●	●	●	x
Animals or vegetable, natural or treated	x	●	●	x	x	x	x	●	●	●	x
Water emulsions in oil (margarine, butter, etc.)	●	●	●	●	x	x	x	●	●	●	x
Crustaceans and molluscs not naturally protected by their shells	●	●	●	●	●	●	●	●	●	●	x
Preparation of fresh, chilled, salted, smoked fish or in the form of paste	●	●	●	●	●	●	x	●	●	●	x
All types of meats, fresh, chilled, salted, smoked, in the form of paste or cream	●	●	●	●	●	●	●	●	●	●	x
Processed meat products (ham, bacon, etc.)	●	●	●	●	●	●	●	●	●	●	x
Preserved and partpreserved meat and fish in an aqueous medium	◐	●	◐	●	◐	●	●	●	●	●	x
Preserved and partpreserved meat and fish in an oily medium	x	●	◐	x	x	x	x	●	●	●	x
Eggs, egg yolks, whites of eggs in all forms	●	●	●	●	●	●	●	●	●	●	x
Whole, skimmed or partly dried milk	●	●	●	●	●	●	●	●	●	●	x
Fermented milk (yoghurt, butter milk, etc.)	x	●	x	●	x	●	●	●	●	●	x
Cream and sour cream	x	●	◐	●	x	●	●	●	●	●	x
Whole cheeses with non edible form	●	●	●	●	●	●	●	●	●	●	●
Other cheeses	◐	●	◐	●	◐	●	x	●	●	●	x
Rennet in liquid or viscous form	◐	●	●	●	◐	●	●	●	●	●	x
Powdered or dried rennet	●	●	●	●	●	●	●	●	●	●	x
Sauces without fatty substances on the surface	◐	●	◐	●	◐	●	●	●	●	●	x
Sauces from oil in water emulsions (mayonnaise, salad creams, etc.)	◐	●	◐	●	◐	●	x	●	●	●	x
Sauces containing oil and water forming two distinct layers	x	●	◐	x	x	x	x	●	●	●	x
Mustard	◐	●	◐	●	◐	●	x	●	●	●	x
Vinegar	x	●	x	●	x	●	●	●	●	●	x
Salt	●	●	●	●	●	●	●	●	●	●	●
Sandwiches, toasted bread and the like with fatty substances on the surface	●	●	●	●	●	●	●	●	●	●	x
Sandwiches, toasted bread and the like but without fatty substances on the surface	●	●	●	●	●	●	●	●	●	●	x
Soups, powdered or dried food preparations with fatty substances on the surface	●	●	●	●	●	●	●	●	●	●	x
Soups, powdered or dried food preparations without fatty substances on the surface	●	●	●	●	●	●	●	●	●	●	x
Soups, liquid or paste food preparation with fatty substances on the surface	◐	●	◐	●	◐	●	x	●	●	●	x
Soups, liquid or paste food preparation without fatty substances on the surface	◐	●	◐	●	◐	●	●	●	●	●	x
Fried or roasted foods of vegetable origin (fried potatoes, fritters, etc.)	●	●	●	●	●	●	●	●	●	●	x
Fried or roasted foods of animal origin	●	●	●	●	●	●	●	●	●	●	x
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	●	●	●	●	●	●	●	●	●	●	●
Liquid coffee extracts	●	●	●	●	●	●	●	●	●	●	x
Cocoa powder	●	●	●	●	●	●	●	●	●	●	●
Cocoa paste	●	●	●	●	●	●	x	●	●	●	x
Concentrated extracts of an alcoholic strength equal to or exceeding 5% vol.	x	●	x	●	x	●	●	●	●	●	x
Yeasts and raising agents in paste form	◐	●	◐	●	◐	●	●	●	●	●	x
Dried yeasts and raising agents	●	●	●	●	●	●	●	●	●	●	●
Frozen or deepfrozen foods	●	●	●	●	●	●	●	●	●	●	x
Ic creams	●	●	●	●	●	●	●	●	●	●	x



























* IMPORTANT: non-coated fabric gloves must be used as undergloves, otherwise they are only suitable for contact with dry food. Worn as an underglove, the Krotech Food 828 is suitable for all uses. Only contact between the overglove and the food needs to be checked.

STEP 3

DISPOSABLE GLOVES


	FINISHES	GLOVE	DESCRIPTION	SIZE	LENGTH/ THICKNESS	INTERIOR/ EXTERIOR FINISH	STANDARDS
DISPOSABLE GLOVES	Natural latex Powdered	 SOLO 988	The perfect protection for light food handling	6 7 8 9	23 cm / 0.10 mm	Powdered/smooth	  CAT 3
	Natural latex Chlorinated	 SOLO 995					
	Nitrile Chlorinated	 SOLO 967	Great value for light handling of oily food	6 7 8 9	24.5 cm / 0.08 mm	Chlorinated/ Pebbled, chlorinated	CAT 1
	Nitrile Chlorinated	 SOLO 997	The perfect protection for light handling of oily food	6 7 8 9	24.5 cm / 0.10 mm	Chlorinated/Smooth with pebbled fingertips	  CAT 3
THERMAL PROTECTION	Nitrile	 TEMP-COOK 476	Hygiene and effective thermal protection 100% liquidproof	9 (S)/ 11 (M)/ 12 (L)	45 cm / NS	Knitted thermal protection / Embossed texture	 4443  AJKL  X2XXXX CAT 3
CUT PROTECTION	Seamless textile support from Spectra®*	 KROTECH FOOD 828	Reinforced cut protection for the food industry Ambidextrous	7 8 9 10	27-33 cm / NS	NS / Non-coated	 254X CAT 2

* Honeywell registered brand

	FINISHES	SERVICE LIFE	GLOVE	DESCRIPTION	SIZE	LENGTH/ THICKNESS	INTERIOR/ EXTERIOR FINISH	STANDARDS
LIQUID-PROOF PROTECTION	Natural latex Chlorinated		 SUPERFOOD 177	Dexterity and flexibility	6 7 8 9 10	31 cm / 0.40 mm	Chlorinated/ embossed texture	 0010    CAT 3
	Natural latex Flocked		 SUPERFOOD 165	Flexibility and precision dexterity		30.5 cm / 0.29 mm	Flocked/Embossed texture	CAT 1
	Natural latex Textile support		 JERSETTE 308	Comfortable and suitable for long-term work	5 6 7 8 9 10	30-33 cm / 1.15 mm	Textile support/ Smooth	 3121  X1XXXX CAT 2
	Natural latex Textile support with grip		 HARPON 326	Comfort and safety for gripping bulky, slippery foods	7 8 9 10	32 cm / 1.35 mm	Textile support/ Reinforced grip	 4131  X2XXXX CAT 2
	Nitrile Chlorinated		 OPTINIT 472	Fingertip precision for handling oily foods		31 cm / 0.20 mm	Chlorinated/ Pebbled	 3001    CAT 3
	Nitrile Flocked		 ULTRAFOOD 475	Liquidproof and strong for handling oily foods	6 7 8 9 10	31 cm / 0.34 mm	Flocked/Embossed texture	 4101  JKL CAT 3
			 ULTRAFOOD 495	The lasting solution for safe handling of oily foods		32 cm / 0.38 mm		

 **SHORT-TERM USE**
(opt for a chlorinated interior finish)

 **INTERMITTENT USE**
(opt for a flocked interior finish)

 **CONTINUOUS USE**
(opt for a fabric-lined finish to limit the effects of perspiration)

Critical Environments



Ensuring the protection of both operators and the products they handle, the Mapa AdvanTech range was 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, each of these gloves satisfy all the quality criteria necessary for work in controlled and confined environments.

CONTROLLED ENVIRONMENT
(CLEAN ROOM)













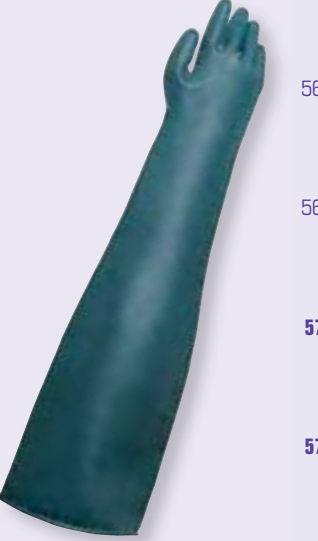






Quality guaranteed at every stage of production:

- Mapa AdvanTech uses its own post-manufacturing cleaning process and clean rooms to maintain a level of product and packaging quality that meets requirements for cleanliness.
- 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 liquid-resistance defect, as well as inflation tested under inspection lamps so as to ensure user safety.
- The chemical resistance checks comply with ASTM standards and EN 374-3, providing the users with the information they need to choose suitable gloves 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.

CONFINED ENVIRONMENTS
(DRY BOX GLOVES)

GLOVE	DESCRIPTION	SIZE	LENGTH	MATERIAL/ INT. FINISH/ EXT. FINISH	STANDARDS	APPLICATIONS
 SENSITRON 515	The comfort and flexibility of latex for short-term operations	7 7 1/2 8	30 cm / 0.20 mm	Latex/chlorinated/ chlorinated	 	Electronics: - Photomask assembly, integrated circuit assembly, CD production, placement of thin layers Health: - Pharmaceutical manufacturing - Manufacturing of medical equipment Laboratories: - Research, analysis, manipulation of precision parts, optical processes
 NIPROTECT 529	Reinforced mechanical resistance for short-term operations	6 7 8 9 10	30 cm / 0.10 mm	Nitrile/ Chlorinated/ Smooth with pebbled fingertips	CAT 3	Electronics: - Assembly of CD/DVD players, integrated circuits, CD production, flat screen assembly Health: - Manufacturing of medical equipment - Manufacturing of pharmaceutical products Laboratories: - Research, analysis - Handling of precision parts
 STANSOLV 519	The chemical protection of nitrile combined with excellent mechanical resistance	6 7 8 9 10 11	33 cm / 0.30 mm	Nitrile/ chlorinated/ chlorinated	 3001  	All applications requiring a reduced incidence of particles and extractables, combined with resistance to solvents, abrasion and puncture: - Silicon handling - Production of ultra-pure chemicals - Solvent handling - Blending operations
 TRIONIC 517	A tripolymer exclusive that offers 100% comfort for optimal mechanical and chemical resistance	6 7 8 9 10 11	36 cm / 0.50 mm	Mixed formula (latex, neoprene and nitrile / Chlorinated / Embossed texture	 1110	Electronics: - Manufacturing integrated circuits, manufacturing semi-conductors, handling of silicon wafers in acid baths Laboratory: - Blending, handling and transport of chemicals, handling under fume hood
518		7 8 9 10 11			 	
522		8 9 10	61 cm / 0.50 mm		CAT 3	
 ADVANTECH	The most comprehensive solution: resistance to alpha rays, mechanical and chemical protection	10 Ø* 178 mm	80 cm / 0.50 mm	Polyurethane/ Smooth/ Smooth	 4232	Electronics: - Dry box glove handling - Handling aggressive parts - Laboratories - Production of nuclear fuel - Operations in isolators, in the pharmaceutical industry - Stripping of parts in confined settings
566		10 Ø* 132 mm			  AFGJKL	
567		10 Ø* 160 mm	CAT 3			
570		10 Ø* 178 mm	Polyurethane/ High-density fibre lining/ Smooth		 4344	
571		10 Ø* 132 mm			  AFGJKL	
572		10 Ø* 160 mm			CAT 3	

* Cuff diameter.

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For more information: www.mapa-pro.com



> Selection guides for each segment to help you choose the right glove.

Also with a comprehensive, constantly updated database to protect you against chemical risks,

> an advanced search engine to find a product based on your own criteria,

> a product comparison tool,

> a tool to help you locate your nearest Mapa Professionnel distributor,

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

If you have a Smartphone, scan this QR Code to visit the Mapa Professionnel download centre.



There you will find documentation for all of our existing products, which you can read on your Smartphone or easily share with your contacts:

Product brochures, data sheets, EC declarations of conformity, chemical resistance tables, thermal insulation curves, food safety test certificates and reports, etc.



MAPA[®]
PROFESSIONNEL
for the job in hand, there is a Mapa glove