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REVISION OF STANDARD EN 374

MAPA PROFESSIONNEL,
a global player in the manufacture and development of protective gloves
provides assistance in understanding the new standards
and undertakes to offer a range of products which are fully compliant.

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Standard EN ISO 374 : 2016

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Protective gloves against chemicals
and micro-organisms.



BEFORE

> Standard EN 374-1: 2003

Chemical protection



Basic protection

Gloves resistant to
penetration
(EN 374-2: 2003)



Specific protection

- Gloves resistant to penetration (EN 374-2: 2003)
- Permeation tests (EN 374-3: 2003): breakthrough time ≥ 30 min for at least three out of a list of twelve chemicals

Protection against micro-organisms (bacteria and fungi)



- Gloves resistant to penetration (EN 374-2: 2003)
- AQL: level 2 minimum (AQL: acceptable quality level)

NOW

> Standard EN ISO 374-1: 2016

Protective gloves against chemicals

It is based on three test methods:

- Penetration test in accordance with standard EN 374-2: 2014
- Permeation test in accordance with standard EN 16523-1: 2015 which replaces standard EN 374-3
- Degradation test in accordance with standard EN 374-4: 2013

ONE PICTOGRAM AND THREE TYPES OF GLOVE

Type of gloves	Requirement	Marking
Type A	Penetration resistance (EN 374-2) Breakthrough time ≥ 30 min for at least 6 chemicals in the new list (EN 16523-1)	EN ISO 374-1 / Type A  AJKLPR
Type B	Penetration resistance (EN 374-2) Breakthrough time ≥ 30 min for at least 3 chemicals in the new list (EN 16523-1)	EN ISO 374-1 / Type B  JKL
Type C	Penetration resistance (EN 374-2) Breakthrough time ≥ 10 min for at least 1 chemical in the new list (EN 16523-1)	EN ISO 374-1 / Type C 

Degradation test (deterioration of the physical properties of the glove in contact with the chemical) in accordance with EN 374-4: 2013



To be able to claim protection against a chemical of the list, permeation and from now degradation tests must be carried out. The results of the degradation test must appear in the information leaflet.

6 new chemicals have been added to the list of hazardous compounds

LIST OF HAZARDOUS COMPOUNDS			
Code	Chemical	CAS number	Class
A	Methanol	67-56-1	Primary alcohol
B	Acetone	67-64-1	Ketone
C	Acetonitrile	75-05-8	Nitrile composite
D	Dichloromethane	75-09-2	Chlorinated hydrocarbon
E	Carbon disulphide	75-15-0	Organic compound containing sulphur
F	Toluene	108-88-3	Aromatic hydrocarbon
G	Diethylamine	109-89-7	Amine
H	Tetrahydrofuranne	109-99-9	Heterocyclic ether compound
I	Ethyl acetate	141-78-6	Ester
J	n-Heptane	142-82-5	Saturated hydrocarbon
K	sodium hydroxide 40%	1310-73-2	Inorganic base
L	sulphuric acid 96%	7664-93-9	Inorganic mineral acid, oxidising
M	nitric acid 65%	7697-37-2	Inorganic mineral acid, oxidising
N	acetic acid 99%	64-19-7	Organic acid
O	ammonia 25%	1336-21-6	Organic base
P	hydrogen peroxide 30%	7722-84-1	Peroxide
S	hydrofluoric acid 40%	7664-39-3	Inorganic mineral acid
T	formaldehyde 37%	50-00-0	Aldehyde

> Standard EN ISO 374-5: 2016

Protective gloves against micro-organisms

Gloves must pass the penetration resistance test in accordance with standard EN 374-2: 2014. **The possibility of claiming protection against viruses was added, if the glove passes ISO 16604: 2004 (method B) test.**

EN ISO 374-5



For gloves offering
protection against
bacteria and fungi.

EN ISO 374-5



VIRUS

For gloves protecting
against bacteria,
fungi and viruses.