

well INFORMED well PROTECTED well AHEAD

EN ISO 374



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**EN REGULATIONS FOR DANGEROUS CHEMICALS
AND MICRO-ORGANISMS ARE CHANGING.
LET ANSELL BE YOUR GUIDE.**

The new EN374 chemical and micro-organism protection guidelines have recently been updated for the first time in over 10 years. In order to make these changes easier to understand, Ansell has developed a series of materials to help explain what elements in the standard have changed and why it matters.

➤ To learn more, please visit
www.ansell.com/en-us/regulatory-compliance

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EN374 STANDARD: 2016 CHANGES

Official EN ISO 374:2016 standard was published in November 2016.

Changes at a Glance

The new EN ISO 374 standard refines the required capabilities for gloves that protect workers whose hands are subject to chemical and/or micro-organism exposure. This summary highlights changes to the EN374 standard. To visit the Ansell Resource Center, please visit:

www.ansell.com/en-us/regulatory-compliance

NEW NOMENCLATURE

old

EN374:2003

Gloves protecting from chemicals and micro-organisms.

new

EN ISO 374:2016

Gloves protecting from dangerous chemicals and micro-organisms.

NEW STANDARDS AGREEMENT

old

EN

Created by the European Committee for Standardization (CEN), applicable in Europe and selective affiliate countries (e.g., Australia).

new

EN ISO

Created cooperatively by ISO or CEN under the Vienna agreement; applicable in Europe and all countries that accept ISO; the defacto standard when Europe adopts it as an ISO standard.

old

ISO

Created by the International Standards Organization; generally accepted if it complies with local regulations; subject to PPE directives in Europe.

NEW TESTS

PERMEATION

old

EN374-3:2003

Scoring: 3 specimens taken from the palm or the weakest area are tested for breakthrough times and the lowest is the result.

Cuffs: No standard for cuff testing.

Chemicals Tested: The original list includes 12 chemicals labeled A through L.

A	Methanol	67-56-1	Primary alcohol
B	Acetone	67-64-1	Ketone
C	Acetonitrile	75-05-08	Nitrile compound
D	Dichloromethane	75-09-2	Chlorinated paraffin
E	Carbon disulfide	75-15-0	Sulphur containing organic compound
F	Toluen	108-88-3	Aromatic hydrocarbon
G	Diethylamine	109-89-7	Amine
H	Tetrahydrofuran	109-99-9	Heterocyclic and ethereal compound
I	Ethyl acetate	141-78-6	Ester
J	n-Heptan	142-85-5	Saturated hydrocarbon
K	Sodium hydroxide 40%	1310-73-2	Inorganic base
L	Sulfuric acid 96%	7664-93-9	Inorganic mineral acid

new

EN ISO 374:2016 / EN 16523-1:2015

Scoring: 3 specimens taken from the palm are tested for breakthrough times and the lowest is the result; the performance level is correlated with the breakthrough time table.

Cuffs: Gloves with long cuffs greater or equal to 400mm/15.75in are also to be tested with samples taken at 80mm/3.15in from end of cuff.

Chemicals Tested: The chemical permeation table now includes 6 new categories labeled M through R.

M	Nitric acid 65%	7697-37-2	Inorganic mineral acid, oxidizing
N	Acetic acid 99%	64-19-7	Organic acid
O	Ammonia 25%	1336-21-6	Mineral base
P	Hydrogen peroxide 30%	7722-84-1	Peroxide
Q	Hydrofluoric acid 40%	7664-39-3	Inorganic mineral acid
R	Formaldehyde 37%	50-00-0	Aldehyde

DEGRADATION

old

No standard in place.

new

EN374-4:2013

These are new test methods considering the glove before and after a contact with the chemical.

- Normative: Puncture Degradation Resistance test (as per the EN388 test for puncture resistance)

- Informative: Weight Change test

The results are reported in Instruction for Use as percentage of change due to degradation in perforation test.

MICRO-ORGANISMS

old

EN ISO 374-1:2003

Micro-organism requirements previously defined under the EN374-1 standard.

new

EN ISO 374-5:2016

Protection against bacteria and fungi.

new

EN ISO 374-5:2016 + ISO16604 / Method B:

Protection against bacteria, fungi and virus is now included with a new pictogram marked on the glove as shown on page 4 of this guide.

Changes at a Glance


NEW MARKS & REQUIREMENTS

Dangerous Chemical Pictograms

Gloves can only claim protection against Chemical Risks when:


- Type C, B or A performance is achieved using the permeation test method EN16523-1:2015 (summarized here)

EN ISO 374-1/Type C



At least Level 1 performance (more than 10 minutes) against at least one chemical on the list


EN ISO 374-1/Type B



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At least Level 2 performance (more than 30 minutes) against at least three chemicals on the list

EN ISO 374-1/Type A



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At least Level 2 performance (more than 30 minutes) against at least six chemicals on the list

- The glove is leakage proof following testing using the EN374-2:2014 method
- Degradation performance for claimed chemicals is available through the information supplied by a manufacturer

Note:



The beaker icon (low chemical resistance / waterproof) has been eliminated.

Micro-organism Pictograms

The pictogram on the left previously related to bacteria and fungi. The new standard calls for a new viral penetration test. If a glove passes this extra test, the word, "Virus" will be added under the Micro-organism pictogram.

EN ISO 374-5



EN ISO 374-5



VIRUS

WARNING: No glove provides complete protection against cuts, abrasions, punctures or chemicals. Users should test the suitability of Ansell products for a particular purpose, for use within a particular environment or against particular chemicals. See <http://www.ansell.com/en/Legal/Disclaimer.aspx> for additional information.

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