

EN ISO 374-1: 2016+A1:2018 Modification to the Standard for chemical protective gloves

Chemical protective gloves must meet the requirements of European standard EN ISO 374-1:2016+A1:2018. This standard has undergone fundamental changes in terms of certification.

# Part 1 (Terminology and performance requirements for chemical risks) contains important innovations:

- Expansion of test chemicals from 12 to 18
- · Omission of beaker glass for "water-resistant safety glove with low protection against chemical risks"
- · Standardisation of types of gloves into type A, B or C
- Modification to labelling on the product: Pictogram of Erlenmeyer flask with differing number of letters for test chemicals depending on type

# New labelling of safety gloves:

ISO 374-1 / Type A





Permeation resistance of Type A: least 30 minutes each with at least 6 test chemicals. ISO 374-1 / Type B





Permeation resistance of Type B: least 30 minutes each with at least 3 test chemicals. ISO 374-1 / Type C





Permeation resistance of Type C: least 30 minutes each with at least 1 test chemical.

# Permeation

measured breakthrough time:	performance levels against permeation:
>10 minutes >30 minutes >60 minutes >120 minutes >240 minutes >480 minutes	level 1 level 2 level 3 level 4 level 5 level 6

Permeation is the molecular penetration through the protective glove material. The time taken for the chemical to do so, is given in a performance level according to EN ISO 374-1:2016+A1:2018. The performance levels may not reflect the actual duration of protection in the workplace and may differ significantly.

Conservation: minimum 24 months from manufacture

Letter symbol		Test chemical	CAS no.	Class
	Α	Methanol	67-56-1	Primary alcohol
	В	Acetone	67-64-1	Ketone
	С	Acetonitrile	75-05-8	Nitrile
	D	Dichloromethane	75-09-2	Chlorinated hydrocarbon
	E	Carbon disulphide	75-15-0	Sulphur-containing organic compound
NE S	F	Toluene	108-88-3	Aromatic hydrocarbon
EXISTING	G	Diethylamine	109-89-7	Amine
	Н	Tetrahydrofuran	109-99-9	Heterocyclic and ether compounds
	1	Ethyl acetate	141-78-6	Ester
	J	n-heptane	142-82-5	Aliphatic hydrocarbon
	K	Sodium hydroxide, 40%	1310-73-2	Inorganic base
	L	Sulphuric acid, 96%	7664-93-9	Inorganic acid, oxidising
NEW	M	Nitric acid, 65%	7697-37-2	Inorganic acid, oxidising
	N	Acetic acid, 99%	64-19-7	Organic acid
	0	Ammonia water, 25%	1336-21-6	Organic base
	Р	Hydrogen peroxide, 30%	7722-84-1	Peroxide
	S	Hydrofluoric acid, 40%	7664-39-3	Inorganic acid
	Т	Formaldehyde, 37%	50-00-0	Aldehyde

## Warning!

Chemical resistance data proved, has been assessed under laboratory conditions from samples taken from the palm only and relates only to the chemical tested. It can be different if it be used in a mixture. The chemical resistance data may not reflect the actual duration of protection in the workplace and the differentiation between mixtures and pure chemicals. It is recommended to check that the gloves are suitable for the intended use because the conditions at the workplace may differ from the type test depending on temperature, abrasion, and degradation. When used, protective gloves may provide less resistance to the dangerous chemical due to changes in physical properties. Movements, snagging, rubbing, degradation caused by the chemical contact etc. may reduce the actual use time significantly. Chemical permeation data, as tested per EN 374-1:2016+A1:2018 test method, are available upon request. For more detailed information on the product's performance, please consult Rex-Gummitechniken.

#### **B.** Precautions for use

- Before usage, inspect the gloves for any defections or imperfections such as holes, pinholes and tears. If the gloves are ripped or punctured during the use, dispose of them immediately. If in doubt, do not use the gloves, get a new pair.
- Do not reverse the gloves
- It is essential to keep all chemical from contact with the skin, even if they are thought to be harmless.
- Avoid wearing gloves which are dirty on the inside they may irritate the skin, causing dermatitis or worse.
- Contaminated gloves should be cleaned or washed before removal.
- Ensure the chemicals cannot enter via the cuff.
- Gloves which have tear level of 1 or above (as per EN 388) should not be used for protection against serrated blades or when there is a risk of entanglement with moving machine parts.
- The gloves should not come in contact with a naked flame.
- Glove shall not be used for protection against ionising radiation nor for use in containment enclosures.

# C. Ingredients / Hazardous ingredients

Potential allergens: Tetramethylthiuramdisulfid, Mercaptobenzolthiazoldisulfid, Dipentamethylenthiuramtetrasulfid

#### D. Care instructions

Storage: Keep away from direct sunlight; store in a cool dry place and keep in the original packaging. Keep away from ozone sources. If gloves are properly stored, as indicated above, they won't lose their performances and won't change the glove characteristics significantly. If gloves could be affected by ageing or storage, the expiry data is mentioned on the packaging materials. The shelf-life is 24months. At 25 degree (77 Fahrenheit) maximum 6 years storable.





**Cleaning:** Chemical resistant gloves are not designed to be laundered or to be reused.

## E. Disposal

Used gloves may be contaminated with infectious or other hazardous materials. Dispose of according to Local Authority Regulations. Landfill or incinerate under controlled conditions.

# Marking on the gloves:



- Name of the manufacturer
- 2 Item number with associated thickness, size and length
- Date of manufacture month/year
- Pictogram with standards
- 5 Letters symbolize test chemicals, at least protection index 2
- Consult the enclosed instruction for the application
- 7 Protection against virus, fungi and bacteria
- 8 Mechanical performance levels
- 9 Address, web address
- 10 CE Type Examination notified body 0299 (FB PSA test and certification body for DGUV Test, Zwangenberger Straße 68 42781 Haan, Germany)

As before, the application guidance of the manufacturer is of great importance. The specific protection requirement must be determined as part of a risk assessment of the actual works process taking account of the specific application conditions. A designated safety professional must define the individual requirements and secure conformation of the specific protection levels of the protective gloves from the manufacturer's data sheets.

# Chemical risks safety gloves without carrier



Made in Germany =

## **REX Butyl Vitric**

- · Chemical protection glove without stockinette made from butyl rubber with a viton outer layer
- Good grip in damp and wet areas
- Good resistance to aliphatic and aromatic hydrocarbons (e.g. hexane, benzene, toluene, xylene and others), halogenated hydrocarbons (e.g. trichloroethylene, perchloroethylene, dichloromethane and others), organic and inorganic acids (diluted to concentrated), as well as saturated saline solutions
- · Good fit
- · Highly flexible
- Fabricated in accordance to EN 420:2003+A1:2009, EN 388:2016, EN ISO 374-1:2016+A1:2018, EN 374-2:2014, EN 374-4:2013, EN ISO 374-5:2016

# Applications:

Chemical industrie

	Butyl vitric	
Product code	ct code 6203,6213,6205,6215,6207,6210	
Category	Cat.3-chemical protective gloves	
Certificate/Norm	, , , , , , , , , , , , , , , , , , , ,	
	EN 374-2:2014, EN 374-4:2013, EN ISO 374-5:2016,	
	EC-Type Test Certificate Module B, control measures Module C2	
Coating	Butyl / Vitric / Viton®	
Variation	ation Smooth	
Length	ngth 300 / 350	
Thickness	hickness 0,3 / 0,5 / 0,7	
Size	7-11	
Colour	ur Black	
Suitable for	table for Good resistance to alphatic, aromatic and halogenatic hydrocarbons	
Features	Rolled edge	