

A man wearing a yellow hard hat and safety glasses is working on industrial machinery. He is wearing a green protective suit with a label that reads "HEM Microfluid". He is wearing black gloves and is holding a metal component of the machinery. The background shows industrial structures and pipes.

Ansell

INDUSTRY GUIDE



CHEMICAL

ANSELL PROTECTION SOLUTIONS FOR INDUSTRY PROCESSES

Ansell is dedicated to worker safety: we provide a comprehensive range of hand, arm and body protection solutions to cover needs across many industries. Before selecting a product, ensure a risk assessment of the hazards has been conducted to determine that the product will provide an appropriate level of protection. Ansell Guardian® Chemical can be consulted to provide an assessment of the level of chemical protection offered by our products and may assist in the risk assessment. The determination of suitability of Ansell hand, arm and body protection solutions is the final responsibility of the user.

EN 388 – Mechanical protection

This standard applies to all kinds of protective gloves in respect of physical and mechanical aggressions caused by abrasion, blade cut, puncture and tearing.

Performance level rating		1	2	3	4	5	
 EN 388:2003 abcd	a Abrasion Resistance (Cycles)	100	500	2000	8000	–	
	b Blade Cut Resistance (Coupe Test/Index)	1.2	2.5	5.0	10.0	20.0	
	c Tear Resistance (Newtons)	10	25	50	75	–	
	d Puncture Resistance (Newtons)	20	60	100	150	–	
Expanded performance level rating according to EN 388:2016 (a–f)		A	B	C	D	E	F
 EN 388:2016 abcdef	e EN ISO Cut Resistance (Newtons)	2	5	10	15	22	30
	f EN Impact Protection	PASS or FAIL					

Note: Level X can also be applied for a through e above, which means “not tested” or “not applicable”

EN 388:2016: main changes from the previous EN 388:2003 standard

1. ABRASION

New abrasion paper used in testing.

2. CUT







New procedure for Coupe Test which also determines if dulling occurs. If dulling occurs, the new EN ISO 13977 test method becomes the reference whilst the Coupe Test would only be indicative.

3. IMPACT

Test method for areas claiming impact protection. “P” for pass whilst no code will apply in case of fail.

EN ISO 374 – Chemical protection and/or protection against micro-organisms

This standard specifies the capability of gloves to protect the user against chemicals and/or micro-organisms.

Micro-organisms								
<div>EN 374:2003</div> <div></div> <div>EN level ≥ 2</div> <div>EN ISO 374-5:2016</div> <div></div> <div>VIRUS</div>	Performance levels	1	2	3				
	<p>Old: AQL (Acceptable Quality Level) for liquid penetration. A high index number is poor and a low index number is good. Gloves need to pass water and air leak test, and this test method remains unchanged as per the new EN ISO 374 standard.</p> <p>New: in addition to testing for protection from bacteria and fungi, each glove can be tested for its protection against viruses with a new viral penetration test.</p>	4.0	1.5	0.65				
Chemical protection								
<div>EN 374:2003</div> <div></div> <div>XYZ</div> <div>EN ISO 374-1:2016</div> <div>Type C</div> <div></div> <div>XYZ</div> <div>EN ISO 374-1:2016</div> <div>Type B</div> <div></div> <div>XYZ</div> <div>EN ISO 374-1:2016</div> <div>Type A</div> <div></div> <div>UVW XYZ</div>	<p>Old: breakthrough time > 30 minutes for at least three chemicals from this list (XYZ represent the code letters for three of these chemicals for which the glove obtained > 30 minutes breakthrough time).</p> <p>New:</p> <p>Type C At least Level 1 performance (more than 10 minutes) against at least one chemical on the list – cuffs are also tested.*</p> <p>Type B At least Level 2 performance (more than 30 minutes) against at least three chemicals on the list – cuffs are also tested.*</p> <p>Type A At least Level 2 performance (more than 30 minutes) against at least six chemicals on the list – cuffs are also tested.*</p>	<p>A. Methanol B. Acetone C. Acetonitrile D. Dichloromethane E. Carbon disulphide F. Toluene</p> <p>Additional chemicals</p> <p>M. Nitric acid 65% N. Acetic acid 99% O. Ammonium hydroxide 25%</p>	<p>G. Diethylamine H. Tetrahydrofuran I. Ethyl acetate J. n-Heptane K. Sodium hydroxide 40% L. Sulphuric acid 96%</p> <p>P. Hydrogen peroxide 30% S. Hydrofluoric acid 40 % T. Formaldehyde 37%</p>					
	Performance level	0	1	2	3	4	5	6
	Minutes	< 10	10	30	60	120	240	> 480

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

* Only if the glove is ≥ 40 cm



CHEMICAL INDUSTRY PROCESSES



1. WAREHOUSING

Applications:

- Warehousing of raw materials
- Loading/unloading trucks and vehicles
- Handling incoming goods

User needs:

- Dexterity
- Abrasion protection
- Chemical resistance and grip



HyFlex® 11-840



AlphaTec® 2000 STANDARD*



2. PREPARATION OF MATERIALS

Applications:

- Filling, blending and charging of raw materials
- Transferring liquids and solids
- Opening/draining pumps, valves or lines

User needs:

- Chemical resistance
- Abrasion protection
- Dexterity and grip



AlphaTec® 58-535B/W



AlphaTec® 3000*



3. PRODUCTION & PROCESSING

Applications:

- Loading and unloading process equipment
- Transferring liquids and solids between vessels, tanks and process equipment
- Supervision of running operation

User needs:

- Chemical and liquid resistance
- Grip
- Anti-static



AlphaTec® 58-735



AlphaTec® 4000*



4. PRODUCT SHIPPING

Applications:

- Handling outgoing goods: cans, vessels, bulkpack and cartons
- Loading trucks and vehicles
- Product shipping, transport and delivery

User needs:

- Abrasion protection
- Dexterity
- Chemical resistance and grip



HyFlex® 11-840



AlphaTec® 2300 PLUS*



5. LAB AND R&D

Applications:

- Testing
- Charging and blending raw materials
- Maintenance

User needs:

- Chemical resistance
- Dexterity
- Flexibility and grip



MICROFLEX® 93-260



AlphaTec® 3000*



MICROFLEX® 93-850



6. REPAIR AND MAINTENANCE

Applications:

- Opening furnaces, draining pumps, valves or lines and crackers BTX process
- Cleaning furnaces, distillations, pumps, valves or lines and crackers BTX process

User needs:

- Grip and dexterity
- Chemical and liquid resistance
- Cut and abrasion protection



HyFlex® 11-724



AlphaTec® 5000*



7. SHEET METAL WORKSHOP

Applications:

- Hot metalwork
- Painting
- Locksmith

User needs:

- Dexterity and flexibility
- Flammability protection
- Contact heat resistance



ActivAmr® 80-813



MICROCHEM® CFR



8. EMERGENCY RESPONSE

Applications:

- Unexpected leakages, spills or other releases

User needs:

- Chemical and liquid resistance
- Tear resistance
- Flame retardancy



AlphaTec® 38-612*



AlphaTec® 02-100*



AlphaTec® Flash*

*There will be a transitional period where there will be a mix of old and newly branded products in the market. Functionality and performance of the products will remain unchanged, the current products and the new ones have the same quality and same protection.

GET MORE PRODUCT INFORMATION ONLINE

Our websites provide you with easy access to our product search tools along with data/product sheets and certificates.



Hand and arm protection



<http://industrialcatalogue.ansell.eu>

Select the right glove or sleeve that best fits your industry and application.



Body protection



www.microgard.com

Find more information on our MICROGARD®, MICROCHEM® and AlphaTec® chemical protective clothing products.

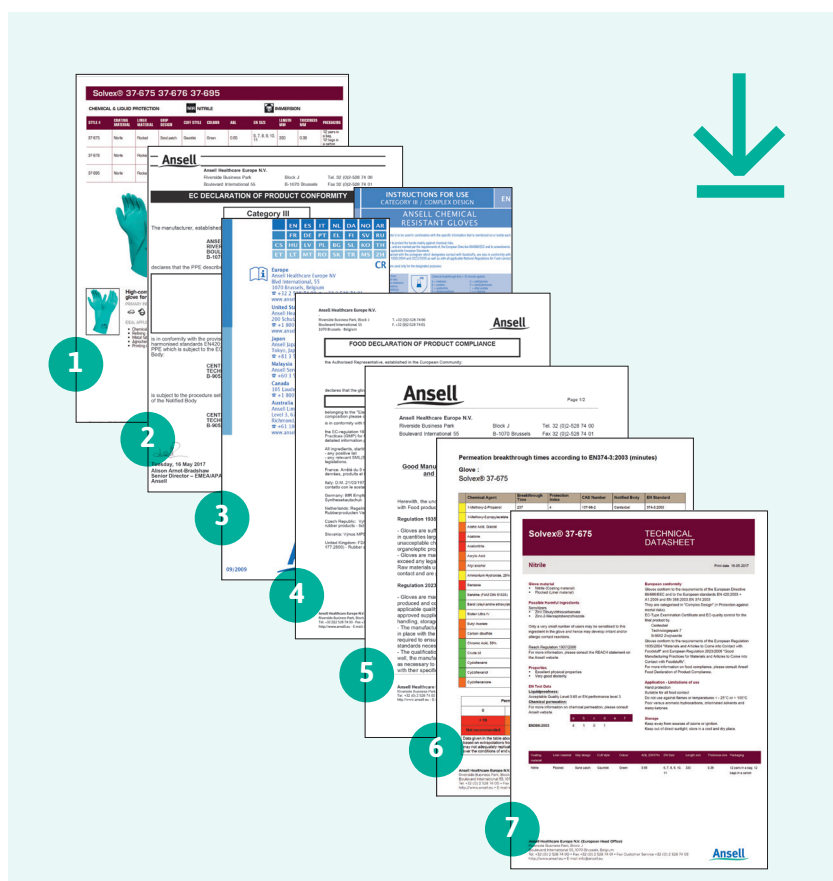
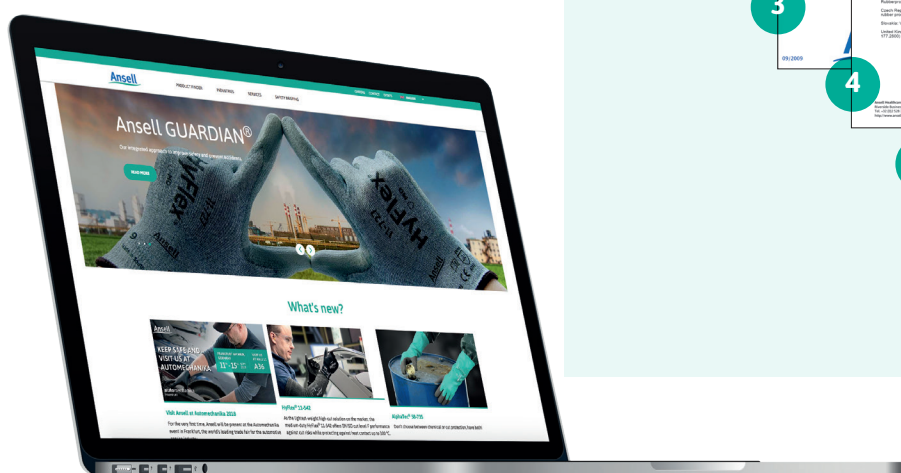


<http://protective.ansell.com>

Find more information on our VIKING™, TRELLCHEM®, TRETIGHT™, TRELLTENT™ and AlphaTec® products.

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- 1 Product sheets
- 2 EU declaration of conformity
- 3 Instructions for use
- 4 Food declarations of product conformity
- 5 GMP food declaration
- 6 Chemical recommendation guides
- 7 Technical data sheets



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