

AlphaTec®



CHEMICAL HAND PROTECTION SOLUTIONS

A guide for AlphaTec solutions in Automotive, Machinery & Equipment and Metal Fabrication

Ansell

NEW STANDARD EN ISO 374:2016

Gloves giving protection from dangerous chemicals and micro-organisms



New Standard

EN ISO 374:2016

This standard refines the required capabilities for gloves that protect workers whose hands are subject to chemical and/or micro-organism exposure. This includes new and expanded test methods as well as new marks.

New Test Methods

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

Chemicals Tested: The chemical permeation table now includes 6 new categories labeled M through T in addition to the 12 labelled A through L.

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
S Hydrofluoric acid 40%	7664-39-3	Inorganic mineral acid
T Formaldehyde 37%	50-00-0	Aldehyde

Results: The result is the lowest breakthrough time of three tested samples.

EN 374-4:2013 DEGRADATION

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

EN ISO 374-5:2016 MICRO-ORGANISMS

Protection against bacteria and fungi.

EN ISO 374-5:2016 + ISO 16604/ Method B

Protection against bacteria, fungi and virus.

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



EN ISO 374-1/Type B



XYZ

EN ISO 374-1/Type A



UVWXYZ

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

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

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 the claimed chemicals has to be tested.

Micro-organism Pictograms

Gloves can only claim protection against Micro-organism Risks when they meet these performance requirements:

- For bacteria and fungi, the glove is leakage proof as per EN 374-2:2014.
- In addition, for virus protection, the glove passes the ISO 16604 / Method B test.

EN ISO 374-5



EN ISO 374-5



VIRUS



Ansell has developed a range of tools to support the adoption of the EN374 standard and other regulatory updates.

Learn more and download a copy of our EN374 Reference Guide and find other materials at: www.ansell.com/enresourcecenter

Ansell

AUTOMOTIVE, MACHINERY & EQUIPMENT, AND METAL FABRICATION PROCESS



MACHINING

Product

Application and its related requirements

Performance Standard & Technologies



**AlphaTec®
58-128**

Inspection

- Medium to high abrasion
- Medium to high dexterity
- Light cut resistance
- Liquid repellence

Assembly/oily

- High tactility & flexibility
- Basic to medium mechanical resistance
- Medium to high oil repellence & grip



0493



INJECTION MOLDING

Product

Application and its related requirements

Performance Standard & Technologies



**AlphaTec®
58-335**

Cleaning mould

- Chemical resistance
- Mechanical

Gluing

- Chemical resistance
- Low surface adhesion

Cleaning

- Chemical resistance
- Low outer surface adhesion



0086



Moisture Management Technology



**AlphaTec®
58-330**

Lubricants preparation

- Chemical resistance
- Oil grip
- Medium abrasion resistance

Cleaning Equipment

- Chemical resistance
- Oil grip
- Medium abrasion resistance



0086



Moisture Management Technology



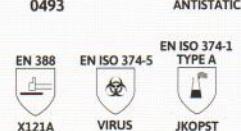
**AlphaTec®
58-128**

Gluing, bonding

- Low mechanical
- High dexterity
- Chemical resistance



0493



**AlphaTec®
58-735**

NEW

Metal working

- Medium abrasion
- Medium to high dexterity
- Light to medium cut resistance
- Chemical resistance

Thermal treatment

- Medium abrasion
- Light to medium cut resistance
- Liquid repellence



0493



Cut Resistance Technology



PAINTSHOP

Product

Application and its related requirements

Performance Standard & Technologies



AlphaTec®
58-435

Gun cleaning

- Chemical resistant
- High flexibility
- Tactility
- Light to medium mechanical resistance
- Paint compatible; (Silicone, wax, lint free)

Robot cleaning

- Heavy chemical resistant
- Covering fore arm
- Light to medium mechanical resistance
- Paint compatible; (Silicone, wax, lint free)



0493



ANTISTATIC



EN 388
4001A



EN ISO 374-5
VIRUS



EN ISO 374-1
TYPE A
AJKLOPT



Ansell Grip Technology



AlphaTec®
58-270

Preparation

- Chemical resistance
- Dexterity

Gun Painting

- Covering fore arm
- Chemical resistant
- Paint compatible; (Silicone, wax, lint free)



0493



ANTISTATIC



EN 388
3131A



EN ISO 374-5
VIRUS



EN ISO 374-1
TYPE A
JKLOPT



Ansell Grip Technology



AlphaTec®
58-530W

Degreasing treatment

- Liquid repellence
- Oil grip
- Medium to high abrasion
- Low cut
- High flexibility

Painting line

- Medium abrasion
- Low cut
- High flexibility
- Dry grip



0493



X1XXXX



EN 388
4142A



EN ISO 374-5
VIRUS



EN ISO 374-1
TYPE A
AJKLOPT



ANTISTATIC



Ansell Grip Technology



ASSEMBLY

Product

Application and its related requirements

Performance Standard & Technologies



AlphaTec®
58-330

Tanks and modules pre fill

- Basic to medium mechanical resistance
- Medium to high dexterity
- Flexibility
- Light liquid repellence & grip



0086



EN 388
3101X



EN ISO 374-5
VIRUS



EN ISO 374-1
TYPE A
JKLOPT



Moisture Management Technology



MAINTENANCE

Product

Application and its related requirements

Performance Standard & Technologies



AlphaTec®
58-735

NEW

Cleaning

- Medium cut
- High abrasion
- Dexterity
- Chemical resistance
- Oil grip

Metal working

- Medium cut
- High abrasion
- Dexterity
- Chemical resistance
- Oil grip



Feel EQUIPPED™

Selection of chemical resistant gloves for your applications can be quite challenging. It's not only about chemical resistance, and often compromises need to be made.

Ansell has been protecting workers for over 100 years. We have specialized teams across 10 industries dedicated to developing solutions for the hazards and applications that workers face every day.

Through continuous new product development and recent acquisitions, Ansell now offers a new and expanded portfolio with a full range of best-in-class chemical protection products. As a result, workers can now take advantage of increased confidence and **Feel EQUIPPED™** from head to toe.

PRODUCT BENEFITS



AlphaTec® 58-128

Second skin fit

- Minimizes hand fatigue and enhance comfort through ergonomics
- Confident grip



AlphaTec® 58-530/535

Extended durability and comfort

- Secure chemical protection
- Improved grip
- A range of liners for extra comfort



AlphaTec® 58-430/435

Chemical protection options to match your needs

- reliable durability in use
- optimal control in slippery environments



AlphaTec® 58-330/335

Ultimate comfort and sweat control

- Secure chemical protection
- Improved fit



AlphaTec® 58-735

Complete protection (Cut + chemical)

- Secure chemical protection
- Confident cut protection

NEW

Ansell **GUARDIAN**[®] Global Safety Services

Ansell Chemical Guardian[™] matches glove materials with your chemicals to offer a personalized glove and suit assessment, along with recommended permeation times, to deliver maximum protection and productivity to your workforce.

Our new digital solution is designed to simplify the selection of Ansell hand and body protection solutions. It offers an instant visual evaluation and an easy-to-use search functionality including the unique Chemical Abstracts Service (CAS) number system.

For specific chemical protection challenges, an expert assessment is also available to provide a simplified set of choices, drawn from our broad portfolio of chemical protection solutions.

For up-to-the-minute chemical permeation data, please visit:

➔ www.ansellguardianpartner.com (hand protection)
www.ansell.com/permeation (body protection)

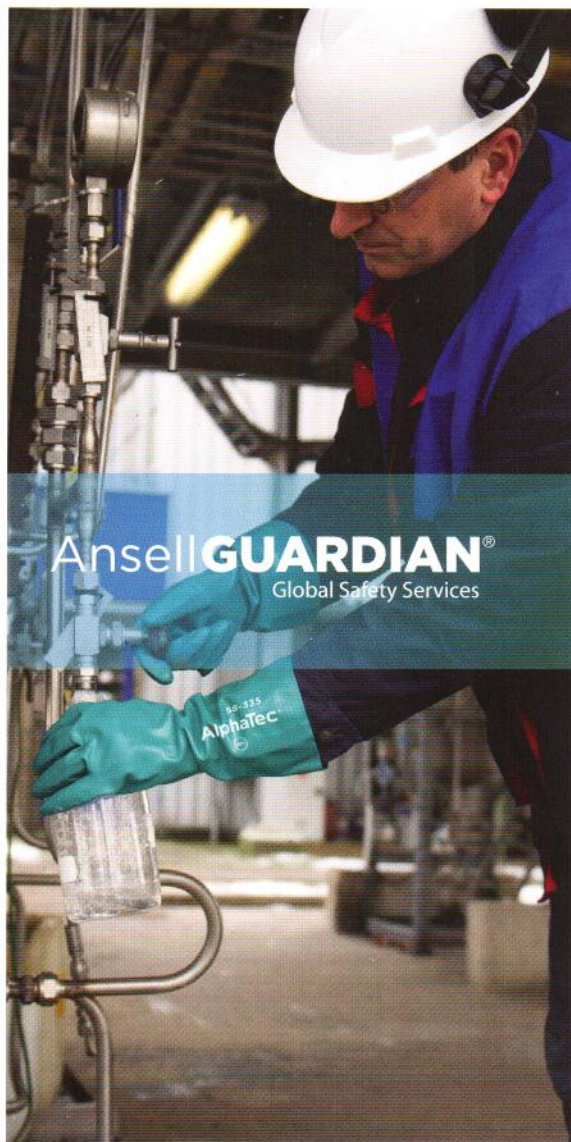
Search

CAS	CHEMICAL NAME
110-82-7	CYCLOHEXANE

Product selection

CHEMICAL PERMEATION DATA

Solution



AlphaTec Nitrile Degradation and Permeation Breakthrough Times

Type	CAS	Chemical name	%	58-128	58-330	58-335	58-430	58-435	58-530B 58-535B		
				Degradation	Permeation	Degradation	Permeation	Degradation	Permeation	Degradation	Permeation
sgl	57-55-6	Propylene Glycol	100	—	60-120'	—	>480'	—	>480'	—	>480'
sgl	110-86-1	Pyridine	100	NR	<10'	NR	10-30'	NR	10-30'	NR	10-30'
sgl	1310-73-2	Sodium Hydroxide	50	E	>480'	E	>480'	E	>480'	E	>480'
sgl	8052-41-3	Stoddard Solvent	100	G	240-480'	E	>480'	E	>480'	E	>480'
sgl	100-42-5	Styrene	100	NR	<10'	NR	10-30'	NR	10-30'	NR	10-30'
sgl	7664-93-9	Sulphuric acid	96	NR	30-60'	NR	30-60'	NR	60-120'	NR	120-240'
sgl	109-99-9	Tetrahydrofuran	100	NR	<10'	NR	<10'	NR	<10'	NR	<10'
sgl	110-01-0	Tetrahydrothiophene	100	—	<10'	—	10-30'	—	10-30'	—	10-30'
sgl	7719-09-7	Thionylchloride	100	—	<10'	—	<10'	—	<10'	—	<10'
sgl	108-88-3	Toluene	100	P	<10'	F	10-30'	F	10-30'	F	10-30'
sgl	79-01-6	Trichloroethylene	100	NR	<10'	NR	10-30'	NR	10-30'	NR	10-30'
sgl	1330-78-5	Tricresyl Phosphate	100	E	>480'	E	>480'	E	>480'	E	>480'
sgl	102-71-6	Triethanolamine	100	E	120-240'	E	>480'	E	240-480'	E	>480'
sgl	121-44-8	Triethylamine	100	—	60-120'	—	>480'	—	>480'	—	>480'
sgl	64742-88-7	White Spirit	100	G	240-480'	E	>480'	E	>480'	E	>480'
sgl	1330-20-7	Xylene	100	P	<10'	G	30-60'	G	30-60'	F	10-30'

Legend

Permeation Breakthrough Times (min)	
<10	Not Recommended
10-30	Splash Protection
30-60	Splash Protection
60-120	Medium Protection
120-240	Medium Protection
240-480	Good Protection
>480	Good Protection

Degradation Ratings	
DD	Delamination of Outer Layer
NR	Not Recommended
P	Poor
F	Fair
G	Good
E	Excellent

Permeation breakthrough times evaluate the time necessary for a chemical to pass through a glove material.

Degradation ratings evaluate the amount of change a glove material will suffer due to contact with a chemical.



ERGOFORM™

Ergonomic Design Technology

ERGOFORM™ is a technology that enables Ansell to design safety solutions that support musculoskeletal health during repetitive tasks to improve worker performance.



Our design reduces stress on joints, ligaments and tendons

Ergonomic fit ensures superior comfort and maximum range of motion

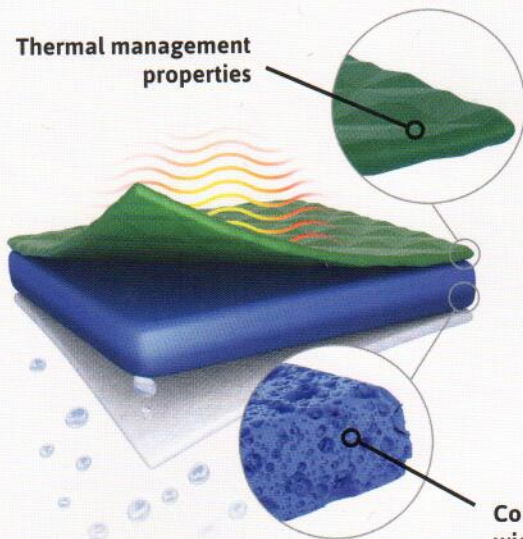


AQUADRI™

Moisture Management Technology

AQUADRI™ features a composite material that wicks perspiration into its micropores and disperses heat for a drier, cooler and more comfortable fit.

Thermal management properties



Composite moisture wicking material

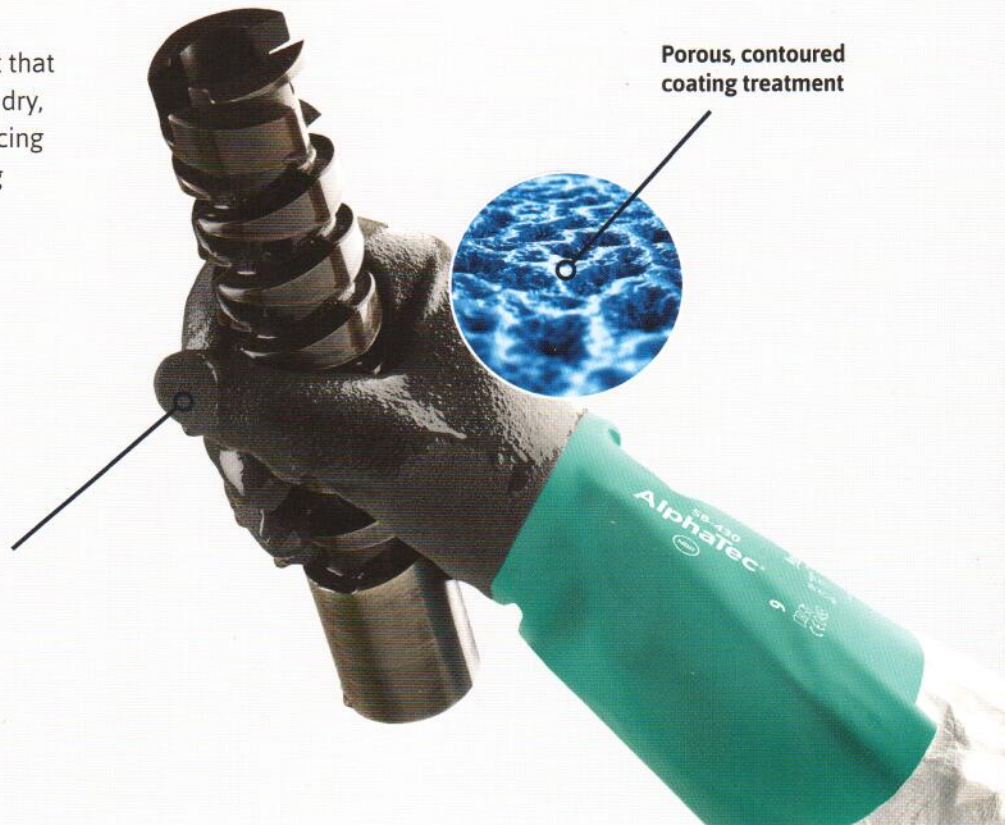




ANSELL GRIP™ is a coating treatment that minimizes the force required to grip dry, oily and wet tools or materials, reducing hand and arm fatigue and improving dexterity, safety and productivity.

Safe handling of tools & materials

Porous, contoured coating treatment



FOR FURTHER INFORMATION, CONTACT YOUR ANSELL REPRESENTATIVE OR VISIT WWW.ANSELL.COM

Europe, Middle East & Africa
Ansell Healthcare Europe NV
Riverside Business Park
Blvd International, 55
1070 Brussels, Belgium
+32 2 528 74 00
+32 2 528 74 01

Ansell, ® and ™ are trademarks owned by Ansell Limited or one of its affiliates. US Patented and US and non-US Patents Pending: www.ansell.com/patentmarking © 2017 Ansell Limited. All Rights Reserved.

WARNING: Products that provide "cut resistance" and "cut protection" or "puncture resistance" and "puncture protection" do not completely prevent or eliminate the potential for cuts or punctures, and are not intended or tested to provide protection against powered blades serrated or other sharp or rotating equipment. Products that provide vibration resistance, "abrasion resistance" or "abrasion protection" do not completely prevent or eliminate the potential for vibration or abrasion-related injuries. Products that provide chemical resistance" or "chemical protection" do not completely prevent or eliminate the potential for injury due to chemical exposure. Products that provide "resistance" to oil or grease or which are "oil repellant" do not completely prevent or eliminate the potential for oil or liquid penetration or absorption. Products that provide "snag resistance" or "snag protection" do not completely prevent or eliminate the potential for snags or friction-related injuries. Products that provide protection against sparks or flames are not "fireproof" and do not completely prevent or eliminate the potential for burns or associated injuries. Products that provide protection or resistance against heat or cold are not intended for use in extreme temperatures – use only as specified. Products containing natural rubber latex may cause allergic reactions in some individuals. Users are encouraged to always use caution and care when handling sharp or abrasive materials, chemicals, or other hazardous or dangerous substances. Any information or data provided is based upon Ansell's current knowledge and understanding of the subject matter, and is offered solely as a possible suggestion for use in making your own decisions or product choices. Product users should conduct all appropriate testing or other evaluations to determine the suitability of Ansell products for a particular purpose or use within a particular environment. It is the responsibility of a product user to assess the level of risk and to determine the protective equipment required or appropriate for the user's particular purpose. Ansell may revise this information as new information, knowledge or experience becomes available. ANSELL DISCLAIMS ALL WARRANTIES OTHER THAN AS EXPRESSLY PROVIDED.