

Ansell

## AnsellGUARDIAN<sup>®</sup> Chemical Report

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## Disclaimer

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In this report, you will find information related to the barrier performance of certain personal protective equipment (PPE) against the chemicals you selected. This information is intended to enable the Health and Safety professional at your organization make more informed decisions about the Ansell PPE that may offer the greatest protection in the intended circumstances and assist with carrying out a risk assessment for your organization.

We wish to highlight that permeation times do not equate to safe wear time. Safe wear time may vary depending on whether the PPE is donned correctly, the surrounding temperature, the chemicals' toxicity, and other factors. Permeation information offered here is limited to the main protective material. Permeation times may vary around seams, zips, visors or any other joins or components of the PPE. It is the responsibility of your organization's Health and Safety professional to undertake a risk assessment before choosing the appropriate PPE for the task at hand. If you want to discuss any aspect in detail, please contact us.

*Estimations of the barrier properties of PPE are based on currently available data and extrapolations from laboratory test results and information regarding the chemicals' composition. Synergistic effects of mixing chemicals have not been accounted for. Estimations are subject to change if new testing is carried out or new information is available providing better grounds for extrapolations. For these reasons, any information in this report is provided for informational purposes only and Ansell fully disclaims any liability including warranties related to any statement contained herein.*

# Legend for Hand Protection

Permeation Breakthrough Times		
	<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

Permeation breakthrough time is the time (in minutes) for the chemical in question to be permeating through the material at a rate of 1.0 µg /cm<sup>2</sup>/min (as per EN ISO 374) or 0.1 µg /cm<sup>2</sup>/min (as per ASTM F739).

PS = Physical State: A = Aerosol, G = Gas, L = Liquid, P = Paste, S = Solid



Product Group : 02-100  
Brand : AlphaTec®  
Material : LLDPE  
Thickness (mm) : 0.062 mm / 2.5 mil

The permeation breakthrough times present in this chart were evaluated according to the EN ISO 374 and ASTM F739 standard. Colored cells with numbers and symbol (C) correspond to experimentally determined data generated by an accredited laboratory.

CAS	Chemical Name	%	PS	EN ISO 374	ASTM F739
687-47-8	(-)-Ethyl L-lactate	100.0	L		> 480' c
138495-42-8	1,1,1,2,3,4,4,5,5,5-Decafluoropentane	100.0	L		> 480' c
95-50-1	1,2-dichlorobenzene	100.0	L	> 480' c	
107-06-2	1,2-Dichloroethane	100.0	L	> 480' c	> 480' c
111-78-4	1,5-Cyclooctadiene	100.0	L		> 480' c
13048-33-4	1,6-Hexanediol diacrylate	100.0	L	> 480' c	360' c
106-94-5	1-Bromopropane	100.0	L		> 480' c
108-65-6	1-Methoxy-2-Propylacetate	100.0	L		> 480' c
108-03-2	1-Nitropropane	100.0	L		368' c
71-41-0	1-Pentanol	100.0	L		> 480' c
540-84-1	2,2,4-Trimethylpentane	100.0	L		> 480' c
598-72-1	2-Bromopropionic Acid	100.0	L		> 480' c
111-76-2	2-Butoxyethanol	100.0	L		> 480' c
611-19-8	2-Chlorobenzyl Chloride	100.0	L		120' c
95-49-8	2-Chlorotoluene	100.0	L	> 480' c	> 480' c
110-80-5	2-Ethoxyethanol	100.0	L		> 480' c
110-43-0	2-Heptanone	100.0	L		> 480' c
78-83-1	2-Methyl-1-propanol	100.0	L	> 480' c	> 480' c
79-46-9	2-Nitropropane	100.0	L		> 480' c
122-99-6	2-Phenoxyethanol	100.0	L	> 480' c	> 480' c



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CAS	Chemical Name	%	PS	EN ISO 374	ASTM F739
107-85-7	3-Methylbutylamin	100.0	L	> 480' c	
106-43-4	4-Chlorotoluene	100.0	L		> 480' c
75-07-0	Acetaldehyde	100.0	L		380' c
64-19-7	Acetic acid	100.0	L	158' c	150' c
67-64-1	Acetone	100.0	L	> 480' c	> 480' c
75-05-8	Acetonitrile	100.0	L	> 480' c	> 480' c
76497-39-7	Acetyl-β-mercaptopisobutyric acid	100.0	L	> 480' c	
107-13-1	Acrylonitrile	100.0	L	> 480' c	> 480' c
107-18-6	Allyl alcohol	100.0	L		> 480' c
90-13-1	alpha-Chloronaphthalene	100.0	L		> 480' c
7664-41-7	Ammonia, gas	100.0	G	> 480' c	19' c
12125-01-8	Ammonium fluoride, aqueous solution	40.0	L		> 480' c
1336-21-6	Ammonium hydroxide	25.0	L	27' c	
1336-21-6	Ammonium hydroxide	33.0	L		30' c
628-63-7	Amyl acetate	100.0	L		470' c
62-53-3	Aniline	100.0	L	> 480' c	> 480' c
100-66-3	Anisole	100.0	L	> 480' c	> 480' c
100-52-7	Benzaldehyde	100.0	L		> 480' c
71-43-2	Benzene	100.0	L	> 480' c	> 480' c
98-07-7	Benzotrichloride	100.0	L		> 480' c



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CAS	Chemical Name	%	PS	EN ISO 374	ASTM F739
98-08-8	Benzotrifluoride	100.0	L		> 480' c
98-88-4	Benzoyl chloride	100.0	L	> 480' c	
103-37-7	Benzyl Butyrate	100.0	L	> 480' c	> 480' c
75-15-0	Carbon disulfide	100.0	L	> 480' c	> 480' c
7782-50-5	Chlorine, gas	100.0	G	> 480' c	> 480' c
108-90-7	Chlorobenzene	100.0	L		> 480' c
67-66-3	Chloroform	100.0	L	17' c	20' c
8007-45-2	Coal tar	100.0	L	> 480' c	
6046-93-1	Copper diacetate hydrate	100.0	S	> 480' c	
502-42-1	Cycloheptanone	100.0	L		> 480' c
108-93-0	Cyclohexanol	100.0	L		> 480' c
108-94-1	Cyclohexanone	100.0	L	> 480' c	> 480' c
117-81-7	Di-2-(ethylhexyl)phtalate	100.0	L		> 480' c
123-42-2	Diacetone Alcohol	100.0	L	> 480' c	> 480' c
74-95-3	Dibromomethane	100.0	L		> 480' c
142-96-1	Dibutyl ether	100.0	L		> 480' c
111-92-2	Dibutylamine	100.0	L	> 480' c	> 480' c
1300-21-6	Dichloroethane	100.0	L	> 480' c	
75-09-2	Dichloromethane	100.0	L	65' c	55' c
109-89-7	Diethylamine	100.0	L	> 480' c	> 480' c



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CAS	Chemical Name	%	PS	EN ISO 374	ASTM F739
60-29-7	Diethylether	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
108-83-8	Diisobutyl ketone	100.0	L		> 480' <span>C</span>
28454-70-8	Diisononylamin	100.0	L	> 480' <span>C</span>	
75-18-3	Dimethyl sulfide	100.0	L		> 480' <span>C</span>
67-68-5	Dimethyl Sulfoxide	100.0	L		> 480' <span>C</span>
927-62-8	Dimethylbutylamine	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
68-12-2	Dimethylformamide	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
123-91-1	Dioxane	100.0	L		> 480' <span>C</span>
5989-27-5	Dipentene ((+)-Limonene)	100.0	L		> 480' <span>C</span>
138-86-3	Dipentene (isomeric form not specified)	100.0	L		> 480' <span>C</span>
111-43-3	Dipropyl ether	100.0	L	> 480' <span>C</span>	
106-89-8	Epichlorohydrin	100.0	L		> 480' <span>C</span>
64-17-5	Ethanol	95.0	L		> 480' <span>C</span>
64-17-5	Ethanol	100.0	L	> 480' <span>C</span>	
1239-45-8	Ethidiumbromide, saturated aqueous solution	4.0	L		> 480' <span>C</span>
626-34-6	Ethyl 3-aminocrotonate	100.0	S	> 480' <span>C</span>	
141-78-6	Ethyl acetate	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
105-54-4	Ethyl butyrate	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
111-15-9	Ethyl glycol ethyl ether acetate	100.0	L		> 480' <span>C</span>



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97-64-3	Ethyl lactate	100.0	L		> 480' c
107-21-1	Ethylene Glycol	100.0	L		> 480' c
110-71-4	Ethylene Glycol Dimethyl Ether	100.0	L	> 480' c	
109-86-4	Ethylene glycol monomethyl ether	100.0	L		470' c
75-21-8	Ethylene Oxide	100.0	G		234' c
50-00-0	Formaldehyde	37.0	L		> 480' c
64-18-6	Formic acid	90.0	L		> 480' c
64-18-6	Formic acid	98.0	L	> 480' c	> 480' c
98-01-1	Furaldehyde	100.0	L		> 480' c
96-48-0	Gamma-Butyrolactone	100.0	L		> 480' c
8006-61-9	Gasoline, natural	100.0	L	> 480' c	170' c
111-30-8	Glutaraldehyde	50.0	L	> 480' c	
142-82-5	Heptane	100.0	L	> 480' c	> 480' c
392-56-3	Hexafluorobenzene	100.0	L	> 480' c	
999-97-3	Hexamethyldisilazane	100.0	L		> 480' c
7647-01-0	Hydrochloric acid	32.0	L	> 480' c	
7647-01-0	Hydrochloric acid	37.0	L	> 480' c	> 480' c
7664-39-3	Hydrofluoric Acid	40.0	L	> 480' c	
7664-39-3	Hydrofluoric Acid	49.0	L	> 480' c	> 480' c
7664-39-3	Hydrofluoric Acid	60.0	L	> 480' c	



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CAS	Chemical Name	%	PS	EN ISO 374	ASTM F739
10035-10-6	Hydrogen bromide, aqueous solutions	48.0	L	> 480' c	> 480' c
7647-01-0	Hydrogen chloride	100.0	G	262' c	232' c
74-88-4	Iodomethane	100.0	L		480' c
78-81-9	Isobutylamine	100.0	L	> 480' c	
27775-00-4	Isononylamin	100.0	L	> 480' c	
67-63-0	Isopropanol	100.0	L		> 480' c
75-31-0	Isopropylamine	100.0	L	> 480' c	
8008-20-6	Kerosene	100.0	L		> 480' c
64742-81-0	Kerosine, hydrodesulphurised	100.0	L	> 480' c	> 480' c
68-11-1	Mercaptoacetic acid	100.0	L	> 480' c	
67-56-1	Methanol	100.0	L	198' c	51' c
78-93-3	Methyl ethyl ketone	100.0	L	> 480' c	> 480' c
110-12-3	Methyl Isoamyl Ketone	100.0	L		> 480' c
108-10-1	Methyl isobutyl ketone	70.0	L		> 480' c
108-10-1	Methyl Isobutyl Ketone	100.0	L	> 480' c	> 480' c
80-62-6	Methyl methacrylate	100.0	L	> 480' c	> 480' c
74-89-5	Methylamine, 40% aqueous solution	40.0	L		> 480' c
64475-85-0	Mineral Spirits, Rule 66	100.0	L		> 480' c
110-91-8	Morpholine	100.0	L		> 480' c
127-19-5	N,N-Dimethylacetamide	100.0	L		> 480' c



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CAS	Chemical Name	%	PS	EN ISO 374	ASTM F739
121-69-7	N,N-Dimethylbenzenamine	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
4637-24-5	N,N-Dimethylformamide dimethyl acetal	100.0	L	> 480' <span>C</span>	
71-36-3	n-Butanol	100.0	L		> 480' <span>C</span>
123-86-4	n-Butyl acetate	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
109-73-9	n-Butylamine	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
1126-78-9	N-Butylaniline	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
110-68-9	N-Butylmethylamine	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
110-54-3	n-Hexane	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
872-50-4	N-Methyl-2-pyrrolidone	100.0	L	> 480' <span>C</span>	260' <span>C</span>
100-61-8	N-Methylaniline	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
109-66-0	n-Pentane	100.0	L		480' <span>C</span>
71-23-8	n-Propanol	100.0	L		> 480' <span>C</span>
8030-30-6	Naphtha	100.0	L		> 480' <span>C</span>
7697-37-2	Nitric acid	10.0	L		> 480' <span>C</span>
7697-37-2	Nitric Acid	30.0	L		> 480' <span>C</span>
7697-37-2	Nitric acid	65.0	L	> 480' <span>C</span>	> 480' <span>C</span>
7697-37-2	Nitric acid	70.0	L		> 480' <span>C</span>
7697-37-2	Nitric acid, fuming	100.0	L		> 480' <span>C</span>
98-95-3	Nitrobenzene	100.0	L	> 480' <span>C</span>	> 480' <span>C</span>
75-52-5	Nitromethane	100.0	L		> 480' <span>C</span>



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CAS	Chemical Name	%	PS	EN ISO 374	ASTM F739
111-86-4	Octylamine	100.0	L	> 480' c	> 480' c
307-34-6	Perfluorooctane	100.0	L	> 480' c	
108-95-2	Phenol	85.0	L		> 480' c
108-95-2	Phenol	90.0	L	> 480' c	> 480' c
7664-38-2	Phosphoric acid	85.0	L	> 480' c	> 480' c
79-09-4	Propionic acid	100.0	L	77' c	
107-12-0	Propionitrile	100.0	L	> 480' c	
75-56-9	Propylene Oxide	100.0	L		> 480' c
110-86-1	Pyridine	100.0	L	> 480' c	> 480' c
6131-90-4	Sodium acetate, trihydrate	100.0	S	> 480' c	
7631-90-5	Sodium bisulfite, saturated solution	40.0	L	> 480' c	
1310-73-2	Sodium Hydroxide	40.0	L		> 480' c
1310-73-2	Sodium Hydroxide, sat. sol.	50.0	L	> 480' c	> 480' c
8052-41-3	Stoddard solvent	100.0	L		> 480' c
100-42-5	Styrene	100.0	L	> 480' c	> 480' c
7664-93-9	Sulfuric acid	96.0	L	> 480' c	> 480' c
7664-93-9	Sulfuric acid	99.0	L		> 480' c
1634-04-4	Tert-Butyl Methyl Ether	100.0	L		> 480' c
127-18-4	Tetrachloroethylene	100.0	L	> 480' c	> 480' c
109-99-9	Tetrahydrofuran	100.0	L	> 480' c	> 480' c



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110-01-0	Tetrahydrothiophene	100.0	L	> 480' c	
108-88-3	Toluene	100.0	L	> 480' c	> 480' c
26471-62-5	Toluene diisocyanate, mixed isomers	100.0	L		> 480' c
102-70-5	Triallylamine	100.0	L		> 480' c
102-82-9	Tributylamine	100.0	L	> 480' c	> 480' c
79-01-6	Trichloroethylene	100.0	L	> 480' c	> 480' c
121-44-8	Triethylamine	100.0	L	> 480' c	
76-05-1	Trifluoroacetic acid	100.0	L	> 480' c	
8006-64-2	Turpentine (oil)	100.0	L		> 480' c
108-05-4	Vinyl acetate	100.0	L		> 480' c
75-01-4	Vinyl chloride	100.0	G		> 480' c
1330-20-7	Xylene, isomeric mixture	100.0	L	> 480' c	> 480' c
	Hydrogen Fluoride (CAS# 7664-39-3, 17 C)		L	170' c	
	Phenol (CAS#108-95-2, 45 C, molten)		L	55' c	44' c
	Phenol (CAS#108-95-2, 70 C, molten)		L	< 6' c	< 6' c
	Phenol 30%(CAS#108-95-2, at 70 C)		L	19' c	8' c
	Phenol 50%(CAS#108-95-2, at 70 C)		L	< 6' c	< 6' c