

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 Body Protection

Permeation Barrier Performance	
	No Barrier
	Splash/Limited Barrier
	Medium Barrier
	Good Barrier

### Permeation Breakthrough Times - $BT_{1.0}$

The  $BT_{1.0}$  is the time taken (in minutes) for the chemical in question to be permeating through the material at a rate of 1.0  $\mu\text{g}/\text{cm}^2/\text{min}$ . this can be determined with a number of standard test methods including EN 16523-1 and ISO 6529. It is commonly utilized mainly within the regions concerned with EN and ISO standards.

### Permeation Breakthrough Times - $BT_{0.1}$

The  $BT_{0.1}$  is the time taken (in minutes) for the chemical in question to be permeating through the material at a rate of 0.1  $\mu\text{g}/\text{cm}^2/\text{min}$ . this can be determined with a number of standard test methods including ASTM F739. It is commonly utilized mainly within the regions concerned with ASTM standards.



### Cumulative Permeation

Cumulative permeation (as opposed to breakthrough times) deals with the amount of chemical permeating through the material, and not the speed (rate) as with the breakthrough times. The two results concerned with this for ISO 16602 are: CPt, the time in minutes it takes for the cumulative permeation to reach 150  $\mu\text{g}/\text{cm}^2$ , and CP, the cumulative permeation (in  $\mu\text{g}/\text{cm}^2$ ) by the end of the test (usually 480 minutes).

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



Product Group: VPS  
 Brand : AlphaTec®



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CPT = Cumulative Permeation Times (in minutes) CP = Cumulative Permeation (in  $\mu\text{g}/\text{cm}^2$ )






CAS	Chemical Name	%	PS	BT <sub>1.0</sub>	BT <sub>0.1</sub>	cumulative	
						CPT	CP
64-19-7	Acetic acid	100.0	L		480' 		
108-24-7	Acetic anhydride	100.0	L		480' 		
67-64-1	Acetone	100.0	L	>480' 	480' 	>480'   <24'	
75-05-8	Acetonitrile	100.0	L	>480' 	480' 	>480'   <24'	
79-06-1	Acrylamide, aqueous solution	40.0	L	>480' 	480' 		
79-10-7	Acrylic acid	100.0	L		480' 		
7664-41-7	Ammonia, gas	100.0	G	>480' 	480' 	>480'   <31'	
62-53-3	Aniline	100.0	L		480' 		
7784-42-1	Arsine	100.0	G		480' 		
71-43-2	Benzene	100.0	L	>480' 			
7726-95-6	Bromine	100.0	L		320' 		
75-15-0	Carbon disulfide	100.0	L	>480' 	480' 	>480'   <24'	
7782-50-5	Chlorine, gas	100.0	G	>480' 			
108-90-7	Chlorobenzene	100.0	L	>480' 	480' 		
67-66-3	Chloroform	100.0	L	>480' 	480' 		
75-09-2	Dichloromethane	100.0	L	>480' 	480' 		
109-89-7	Diethylamine	100.0	L	>480' 	480' 	>480'   <24'	



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CAS	Chemical Name	%	PS	BT <sub>1.0</sub>	BT <sub>0.1</sub>	cumulative	
						CPt	CP
60-29-7	Diethylether	100.0	L	>480' 			
68-12-2	Dimethylformamide	100.0	L		480' 		
57-14-7	Dimethylhydrazine	100.0	L		480' 		
141-78-6	Ethyl acetate	100.0	L	>480' 	480' 	>480'   <24'	
75-21-8	Ethylene Oxide	100.0	G		480' 		
109-92-2	Ethylvinylether	100.0	L	>480' 	480' 		
64-18-6	Formic acid	96.0	L		480' 		
64-18-6	Formic acid	98.0	L		480' 		
142-82-5	Heptane	100.0	L	>480' 	480' 		
7803-57-8	Hydrazine monohydrate, 64%-65% hydrazine	98.0	L	>480' 	480' 	>480'   <20'	
7647-01-0	Hydrochloric acid	37.0	L		480' 		
7647-01-0	Hydrogen chloride	100.0	G	>480' 	480' 	>480'   <24'	
7664-39-3	Hydrogen fluoride, gaseous	100.0	G	152' 	117' 	224'   >191'	
7722-84-1	Hydrogen peroxide	50.0	L	>480' 	480' 		
78-79-5	Isoprene	100.0	L	>480' 	480' 		
67-56-1	Methanol	100.0	L	>480' 	480' 	>480'   <24'	
74-87-3	Methyl chloride	100.0	G		480' 		



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CAS	Chemical Name	%	PS	BT <sub>1.0</sub>	BT <sub>0.1</sub>	cumulative	
						CPT	CP
78-93-3	Methyl ethyl ketone	100.0	L		480' 		
624-83-9	Methyl isocyanate	100.0	L		480' 		
80-62-6	Methyl methacrylate	100.0	L		480' 		
109-73-9	n-Butylamine	100.0	L		480' 		
110-54-3	n-Hexane	100.0	L	>480' 	480' 	>480'   <24'	
7697-37-2	Nitric acid	65.0	L		480' 		
75-52-5	Nitromethane	100.0	L		480' 		
8014-95-7	Oleum, 30% SO <sub>3</sub>	30.0	L		360' 		
108-95-2	Phenol	90.0	L		480' 		
75-44-5	Phosgene	100.0	G		480' 		
7664-38-2	Phosphoric acid	85.0	L		480' 		
7719-12-2	Phosphorus Trichloride	100.0	L		480' 		
110-86-1	Pyridine	100.0	L	>480' 	480' 		
1310-73-2	Sodium Hydroxide	40.0	L	>480' 	480' 	>480'   <24'	
1310-73-2	Sodium Hydroxide, sat. sol.	50.0	L	>480' 	480' 		
100-42-5	Styrene	100.0	L	>480' 	480' 		
7446-09-5	Sulfur dioxide	100.0	G	>480' 	480' 		
7664-93-9	Sulfuric acid	96.0	L	>480' 	480' 	>480'   <24'	



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CAS	Chemical Name	%	PS	BT <sub>1,0</sub>	BT <sub>0,1</sub>	cumulative	
						CPT	CP
7664-93-9	Sulfuric acid	99.0	L	>480' 	480' 		
1634-04-4	Tert-Butyl Methyl Ether	100.0	L	>480' 	480' 		
109-99-9	Tetrahydrofuran	100.0	L	>480' 	346' 	>480'   <52'	
108-88-3	Toluene	100.0	L	>480' 	480' 	>480'   <24'	
26471-62-5	Toluene diisocyanate, mixed isomers	100.0	L	>480' 	480' 		
79-01-6	Trichloroethylene	100.0	L	>480' 	480' 		
121-44-8	Triethylamine	100.0	L	>480' 	480' 		
112-24-3	Triethylenetetramine	100.0	L		480' 		
108-05-4	Vinyl acetate	100.0	L	>480' 	480' 		
75-01-4	Vinyl chloride	100.0	G	>480' 	480' 