CHEMICAL PENETRATION BREAKTHROUGH TIMES

The standardised penetration breakthrough time in the table below is evaluated based on a series of standard test methods such as EN 16523-1 and ISO 6529.
In the colored cells on the right, the data marked with the symbol C are the experimental results of external authoritative laboratories, the data marked with the symbol V are the experimental results of the internal certification laboratory, and the remaining colored cells without specific data indicate estimates

BRAND			Non-Gastight		Non-Gastight		Non-Gastight		Non-Gastight		Gastight	
			AlphaTec® 2300		AlphaTec® 3000		AlphaTec® 4000		AlphaTec® 5000		MICROCHEM® 6000	
CAS	CHEMICAL NAME	%										
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	100										
110-85-0	1,4-Diazacyclohexane	100										
108-65-6	1-Methoxy-2-Propylacetate	100										
64-19-7	Acetic acid	100	5'	V	>480'	V	>480'	C	>480'	V		
67-64-1	Acetone	100	<1'	C	28'	C	>480'	C	>480'	C	>480'	C
75-05-8	Acetonitrile	100			<6'	C	>480'	C	>480'	C	>480'	C
79-10-7	Acrylic acid	100			>480'	C	>480'	C				
107-13-1	Acrylonitrile	100					>480'	C				
107-18-6	Allylalcohol	100			>480'	C	>480'	C				
7664-41-7	Ammonia, gas	100			3'	C	>480'	C	>480'	C	>480'	C
1336-21-6	Ammonium hydroxide	25			>480'	C						
71-43-2	Benzene	100			2'	C	>480'	C	>480'	C	>480'	C
98-88-4	Benzoyl chloride	100										
80-05-7	Bisphenol A	100										
590-92-1	Bromopropionic acid	100										
111-76-2	Butylglycol	100										
75-15-0	Carbon Disulfide	100			<1'	C	2'	C	>480'	C	>480'	C
56-23-5	Carbon tetrachloride	100										
67-66-3	Chloroform	100			<1'	C	11'	C	101'	C		
8007-45-2	Coal tar	100	>240'	V	>240'	V	>480'	C				
108-93-0	Cyclohexanol	100										
108-94-1	Cyclohexanone	100										
84-74-2	Dibutylphthalate	100										
75-09-2	Dichloromethane	100			0'	C	5'	V	59'	C	>480'	C
68334-30-5	Diesel LS	100			15'	C	>480'	C				
109-89-7	Diethylamine	100			0'	C	2'	C	>480'	C	>480'	C
110-85-0	Piperazine	100										
68-12-2	Dimethylformamide	100			>480'	C	>480'	C	>480'	C	>480'	C
67-68-5	Dimethyl Sulfoxide	100					>480'	C				
64742-47-8	Distillate (petroleum), hydrotreated light	100										
64-17-5	Ethanol	50					>480'	C				
141-43-5	Ethanolamine	100			>480'	C	>480'	C				
110-80-5	Ethyl Glycol	100							,		,	
141-78-6	Ethyl acetate	100			3'	C	>480'	C	>480'	C	>480'	C
64-17-5	Ethyl alcohol	96										
64-17-5	Ethyl alcohol	50										
111-15-9	Ethyl glycol ethyl ether acetate	100										
107-21-1	Ethylene Glycol	100			>480'	C	>480'	C				
50-00-0	Formaldehyde	37			>480'	C	>480'	C				
64-18-6	Formic acid	98			>480'	C						
96-48-0	Gamma-Butyrolactone	100										
8006-61-9	Gasoline	100			2'	C	>480'	C				
111-30-8	Glutaraldehyde, 50%	50										
142-82-5	Heptane	100			0'	C	480'	C	>480'	C	>480'	C
999-97-3	Hexamethyldisilazane	100					480'	C				
7647-01-0	Hydrochloric acid	37	94'	V	>480'	C	480'	C				
7664-39-3	Hydrofluoric Acid	49	>480'	C	>480'	C						
7722-84-1	Hydrogen peroxide	30										
540-84-1	Isooctane	100										
78-59-1	Isophorone	100										
67-63-0	Isopropanol	70	>480'	C	>480'	C	>480'	C				

BRAND			Non-Gastight		Non-Gastight		Non-Gastight		Non-Gastight		Gastight	
			AlphaTec® 2300		AlphaTec® 3000		AlphaTec® 4000		AlphaTec® 5000		MICROCHEM® 6000	
CAS	CHEMICAL NAME	%										
67-63-0	Isopropanol	100										
67-56-1	Methyl Alcohol	100	>480'	C	>480'	C	>480'	C	>480'	C	>480'	C
108-10-1	Methyl Isobutyl Ketone	100										
96-33-3	Methyl acrylate	100										
78-93-3	Methyl ethyl ketone	100					>480'	C	>480'	C		
80-62-6	Methyl methacrylate	100					>480'	C				
1634-04-4	Methyl tert-Butyl Ether	100			1'	C	>480'	C				
74-89-5	Methylamine, 40% aqueous solution	40										
8012-95-1	Mineral oil	100										
872-50-4	N-Methyl-2-pyrrolidone	100			>480'	C	>480'	C				
8030-30-6	Naphtha	100										
64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy	100										
64742-49-0	Naphtha, petroleum, hydrotreated light	100										
7697-37-2	Nitric acid	70	254'	V	>480'	C	>480'	C			>480'	V
7697-37-2	Nitric acid	65										
98-95-3	Nitrobenzene	100			>480'	C	>480'	C	>480'	C	>480'	C
111-87-5	Octyl alcohol	100										
144-62-7	Oxalic acid, saturated solution	10			>480'	C						
79-21-0	Peracetic acid	39										
108-95-2	Phenol, aqueous solution	90			>480'	C	>480'	C	>480'	C		
108-90-7	Phenyl chloride	100					>480'	C	>480'	C		
7664-38-2	Phosphoric acid	85			>480'	C	>480'	C				
107-12-0	Propionitrile	100					>480'	C				
57-55-6	Propylene Glycol	100										
107-98-2	Propylene Glycol-1-methylether	100										
110-86-1	Pyridine	100			17'	C	>469'	C	>480'	C		
1310-73-2	Sodium Hydroxide	100										
1310-73-2	Sodium Hydroxide	50	>480'	C	>480'	C	>480'	C	>480'	C	>480'	C
7681-52-9	Sodium Hypochlorite, aqueous solution	15	>480'	C	>480'	C	>480'	C	480'	C		
8052-41-3	Stoddard solvent	100										
100-42-5	Styrene	100			1'	C	303'	C	>480'	C		
7664-93-9	Sulfuric acid	50	>480'	C	>480'	C	>480'	C				
7664-93-9	Sulfuric acid	96	>480'	C	>480'	C	>480'	C	>480'	C	>480'	C
7664-93-9	Sulfuric acid	99					>480'	C				
127-18-4	Tetrachloroethylene	100					>480'	C	>480'	C	>480'	C
109-99-9	Tetrahydrofuran	100			<1'	C	4'	C	>480'	C	>480'	C
7719-09-7	Thionyl chloride	100			<1'	C	2'	C	17'	C	18'	C
108-88-3	Toluene	100			<1'	C	>480'	C	>480'	C	>480'	C
79-01-6	Trichloroethylene	100			2'	C	7'	C	>480'	C		
102-71-6	Triethanolamine	100										
121-44-8	Triethylamine	100			<1'	C	5'	C	>480'	C		
64742-88-7	White spirit	100										
1330-20-7	Xylene, isomeric mixture	100										
71-36-3	n-Butanol	100	>480'		>480'	C	>480'	C				
110-54-3	n-Hexane	100			0'	C	>480'	C	>480'	C	>480'	C
71-23-8	n-Propanol	100	>480'									
109-60-4	n-Propyl acetate	100										
1120-21-4	n-Undecane	100			3'	V						
123-86-4	n-butyl acetate	100										

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

Important note: The penetration time cannot be used to determine the wearing time of a protective suit after it is contaminated. It needs to be judged comprehensively based on factors such as substance permeability, toxicity and exposure conditions. The safe wearing time of protective clothing may be shorter or longer than the penetration time.

Disclaimer: The chemical permeation data may change from the date of printing of the manual. For the most updated and accurate information, please refer to the Chemical Guardian website (https://www.ansellguardianpartner.com/chemical/)*