

The permeation breakthrough times present in this chart were evaluated according to the EN ISO 374 standard. Coloured cells with numbers and the symbol are extracted from data generated by an accredited laboratory. The data in the rest of the cells correspond to estimations.





















MATERIAL THICKNESS														
			Nitrile	Nitrile	Nitrile	Nitrile / Neoprene	Nitrile	Nitrile / Neoprene	Neoprene / Natural Rubber	Butyl	Nitrile	PVA	PVC / Nitrile	LLDPE
	5 (MM)		0.07 mm / 2.8 mil	0.11 mm / 4.3 mil	0.125 mm / 4.9 mil	0.20 mm / 7.9 mil	N/A	0.38 mm / 15 mil	0.68 mm / 26.8 mil	0.35 mm / 13.8 mil	0.56 mm / 22 mil	N/A	N/A	0.062 mm / 2.5 mi
	NAME / STYLE		MICROFLEX®	MICROFLEX®	TouchNTuff®									
CAS	CHEMICAL NAME	% PS	XCEED® 93-833. XC-310	Supreno SE 93-843.SU-310	92-500.600.605 /93-250.300.700	MICROFLEX® 93-260.360	AlphaTec® 58-530.535	AlphaTec® 53-001	AlphaTec® 87-900	AlphaTec® 38-514	AlphaTec® Solvex® 37-185.165/58-008	AlphaTec® 15-554	AlphaTec® 04-004.005	AlphaTec® 02-100
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	100 I	<10′	10-30'	10-30'	<480'	120-240′	<480'	120-240'	<10′	>480′ 🕻	240-480'	10-30'	240-480'
108-65-6	1-METHOXY-2-PROPYLACETATE ACETIC ACID	100 I	<10' <10'	<10' <10'	<10'	10-30'	60-120' 42' C	30-60' 424' C	10-30' 45' C	>480' >480'	120-240'	>480' <10'	30-60'	>480'
64-19-7 67-64-1	ACETONE	100 I 100 I	<1′ 🕻	<1′ 🕻	<10′	3′ €	6' C	12' C	8' C	337′ С		101' C		
75-05-8 70-10-7	ACETONITRILE ACRYLIC ACID	100 I 100 I	<1' C	<1' C	<5′ <u>C</u> <5′ <u>C</u>	5' C 30-60'	5' C	78' C	14' C	>480' C	20' C	330′ C 10-30′	35′ C	>480' C
79-10-7 107-13-1	ACRYLONITRILE	100 I 100 I	<10′	<10′	<10′	3′ C	6' C	10-30'	9′ С	240-480'	<10'	>480' C		>480' C
107-18-6 7664-41-7	ALLYLALCOHOL AMMONIA, GAS	100 Ι	<10' <10'	<10' <10'	<10'	30-60' 10-30'	30-60' 30-60'	120-240' 120-240'	30-60' 30-60'	>480' >480'	120-240' 240-480'	<10'	60-120' <10'	>480' >480'
1336-21-6	AMMONIUM HYDROXIDE	100 g 25 l	<1'	5′ 🖸	29' C	51' C	288' C	382′ С	22′ С	>480'	>480'	<10′	98' C	
71-43-2 98-88-4	BENZENE BENZOYL CHLORIDE	100 I 100 I	<10' <10'	<10' <10'	<10' <10'	5' C <10'	8′ C <10′	24' C	<10' <10'	9' C <10'	32' C	>480' >480'	22' C	>480' C
80-05-7	BISPHENOL A	100 s	>480'	>480′	>480′	>480'	>480'	>480'	>480'	>480'	>480'	>480'	>480'	>480′
590-92-1 111-76-2	BROMOPROPIONIC ACID BUTYLGLYCOL	100 s 100 l	120-240' 10-30'	240-480' 10-30'	240-480' 10-30'	>480' 60-120'	>480' 120-240'	>480' 240-480'	>480' 30-60'	>480' >480'	>480' 240-480'	>480' 120-240'	>480' 60-120'	>480' >480'
75-15-0	CARBON DISULFIDE	100 I	<10′	<10′	<5′ <b>C</b>	1' 🕻	<10'	21′ 🕻	<5′ <b>C</b>	<5′ C	<5′ C	>480'		>480′ С
56-23-5 67-66-3	CARBON TETRACHLORIDE CHLOROFORM	100 I 100 I	<10' <10'	<10' <10'	<10' <10'	39' C	60-120' <10'	120-240'	<10' <10'	10-30' <10'	120-240' <10'	>480' >480'	30-60' <10'	240-480'
8007-45-2	COAL TAR	100 I	10-30'	240-480'	240-480'	>480'	>480'	>480'	240-480'	>480′	>480'	>480'	120-240'	>480' C
108-93-0 108-94-1	CYCLOHEXANOL CYCLOHEXANONE	100 I 100 I	10-30' <10'	60-120' <10'	120-240'	>480' C	240-480'	>480' 30-60'	30-60' 30-60'	>480' >480'	>480'	240-480' >480'	240-480' 30-60'	>480' >480'
84-74-2	DIBUTYLPHTHALATE	100 I	30-60'	60-120′	120-240′	240-480'	>480'	>480'	>480'	>480'	>480′	>480'	>480'	>480′
75-09-2 68334-30-5	DICHLOROMETHANE DIESEL LS	100 I 100 I	<10' 240-480'	<10' >480'	<10' >480'	2' C	<10' >480'	5' C	<10' 30-60'	<5' C	<10' >480'	>480' C	15' C	65' C
109-89-7	DIETHYLAMINE	100 I	<1′ C	1' C	1' C	6' C	28′ 🖸	47' C	<5′ <b>C</b>	<5′ C	55' C	9′ 🖸	30' C	
110-85-0	DIETHYLENEDIAMINE DIMETHYLFORMAMIDE	100 s	>480' <10'	>480'	>480' <5' C	>480'	>480' 18' C	>480' 30-60'	>480' 51' C	>480' >480'	>480' 43' C	>480'	>480' 62' C	>480' >480' C
68-12-2 67-68-5	DIMETHYLSULFOXIDE	100 I 100 I	4' C	10' C	5' C	93' C	120-240'	240-480'	>480′ С	>480' >480'	240-480'	<10′	10-30'	>480' C
64742-47-8	DISTILLATE (PETROLEUM), HYDROTREATED LIGHT	100 I	>480′	>480' 5' C	>480′	>480′	>480′	>480′	30-60'	10-30'	>480′	>480'	>480′	>480′
64-17-5 141-43-5	ETHANOL ETHANOLAMINE	100 I 100 I	2' C	5′ <u>c</u> 60-120′	<10' 60-120'	130′ C 120-240′	120-240' >480'	240-480' >480'	30-60' 60-120'	>480' >480'	>480' >480'	10-30' 240-480'	107' C	>480' C
64-17-5	ETHYL ALCOHOL	50 I	10-30′	30-60'	30-60′	>480′	>480′ 🖸	>480′	120-240′	>480′	>480′	<10'	240-480′	>480′
110-80-5 141-78-6	ETHYL GLYCOL ETHYL ACETATE	100 I 100 I	<10'	<10'	5' C	30-60'	60-120′	120-240'	10-30' 9' C	>480'	240-480' 18'	68' C		>480' >480'
64-17-5	ETHYL ALCOHOL	96 I	<10′	<10′	<10′	120-240'	120-240'	240-480'	30-60'	>480'	>480′	10-30′	60-120'	>480′
111-15-9 107-21-1	ETHYL GLYCOL ETHYL ETHER ACETATE ETHYLENE GLYCOL	100 I 100 I	<10' >480'	<10' >480'	<10' >480'	30-60' >480'	30-60' >480'	60-120' >480'	10-30' >480'	>480' >480'	129' C >480'	>480' 120-240'	30-60' >480'	>480' >480'
50-00-0	FORMALDEHYDE	37 I	>480′ 🖸	>480′ C	>480′ C	>480′ С	>480′ 🖸	>480′ C	>480' C	>480′ С	>480′ C	<10′	>480′ C	_
64-18-6 96-48-0	FORMIC ACID GAMMA-BUTYROLACTONE	98 I 100 I	<10' <10'	<10' <10'	<10' <10'	20' C	10-30' 10-30'	30-60' 30-60'	108' C	240-480' >480'	30-60' 30-60'	<10' 120-240'	120-240′ 10-30′	>480' C
8006-61-9	GASOLINE	100 I	<10′	<10′	84' C	120-240′	120-240′	240-480′	7' C	10-30′	240-480′	>480′	60-120′	>480′ 🕻
111-30-8 142-82-5	GLUTARALDEHYDE, 50% HEPTANE	50 I 100 I	>480' C	>480' C	>480' C	>480' >480'	>480' >480' C	>480' >480' C	>480′ 10-30′	>480'	>480′ >480′ C	<10' C	>480' 200' C	>480' C
999-97-3	HEXAMETHYLDISILAZANE	100 I	10-30′	60-120'	60-120'	>480′ 🕻	240-480'	>480'	30-60'	240-480'	>480′	>480'	60-120′	>480′
7647-01-0 7664-39-3	HYDROCHLORIC ACID HYDROFLUORIC ACID	37 I 49 I	15' C	90' C	51' C	>480' C	>480' C	>480′ C	>480' C	>480' >480'	>480′ C	<10' C	>480' C	>480' C
7722-84-1	HYDROGEN PEROXIDE	30 I	30′ 🖸	201′	33′	446′ 🖸	>480′ 🖸	>480′ С	>480′ 🖸	>480′ С	368' C	<10'	>480′ C	
540-84-1 78-59-1	ISOOCTANE ISOPHORONE	100 I 100 I	240-480' <10'	>480' 10-30'	>480' C	>480' 60-120'	>480' C	>480' 120-240'	30-60' 30-60'	10-30' >480'	>480' 240-480'	>480' >480'	240-480′ <10′	>480' >480'
67-63-0	ISOPROPANOL	100 I	109'	11' C	117' C	380' C	>480' C	>480′ С	123' C	>480′	>480'	72'	155′ C	
67-63-0	ISOPROPANOL	70 I	>480′ 🖸	39' C	178' C	240-480′	>480'	>480′	120-240′	>480′	>480′	<10'	120-240′	>480' >480' C
108-10-1 96-33-3	METHYL ISOBUTYL KETONE METHYL ACRYLATE	100 I 100 I	<10' <10'	<10' <10'	1' C	<10' <10'	<10' <10'	10-30' 10-30'	9' <b>C</b> <10'	69' C	30-60' 10-30'	240-480' 120-240'	10-30' <10'	>480' C >480'
67-56-1	METHYL ALCOHOL	100 I	1'	2' 🔳	1'	22'	56′ 🖸	264′ 🖸	33'	>480′ 🖸		5′ 🖸	_	
78-93-3 80-62-6	METHYL ETHYL KETONE METHYL METHACRYLATE	100 I 100 I	<1' C	<1 C	<5′ C	3′ C <10′	7′ C <10′	15' C	7' C <10'	76' C	10-30' 30-60'	120-240' >480'	20' C <10'	>480' C
1634-04-4	METHYL TERT-BUTYL ETHER	100 I	<10′	10-30'	14'	60-120'	120-240'	240-480'	10-30'	11′ 🕻	>480′	>480'	10-30′	>480′
74-89-5 8012-95-1	METHYLAMINE, 40% AQUEOUS SOLUTION MINERAL OIL	40 I 100 I	<10' >480'	<10' >480'	<10' >480'	10-30' >480'	30-60' >480'	60-120' >480'	60-120' 30-60'	>480' 10-30'	240-480′ >480′	<10' >480'	120-240' >480'	>480' >480'
872-50-4	N-METHYL-2-PYRROLIDONE	100 I	<10′	<10'	<1 C	7' C	10-30'	10-30'	26′	>480′ С	30-60'	<10′	<10′	>480′ С
8030-30-6 64742-82-1	NAPHTHA NAPHTHA (PETROLEUM), HYDRODESULFURIZED	100 I	240-480' 60-120'	240-480' 60-120'	240-480' 60-120'	>480′	>480′	>480′	<10' 10-30'	<10' <10'	>480' 240-480'	>480' >480'	120-240′ 60-120′	>480' >480'
64742-82-1	HEAVY NAPHTHA, PETROLEUM, HYDROTREATED LIGHT	100 I	>480′	>480′	>480′	>480′	>480'	>480'	10-30'	<10'	>480′	>480'	120-240'	>480′
7697-37-2	NITRIC ACID	65 I	<10′	<10′	<10′	30' C	73' C	>480′ 🕻	240-480′	>480′ 🕻	120-240′	<10′	261' C	>480′ C
7697-37-2 98-95-3	NITRIC ACID NITROBENZENE	70 I 100 I	2' C	4' C	<5′ <b>C</b> <10′	39' C	53' C	>480' 60-120'	235' C	>480' C	60-120'	<10' >480'	60-120' 10-30'	>480' >480'
111-87-5	OCTYL ALCOHOL	100 I	60-120'	10-30′	60-120′	>480'	>480′	>480'	60-120′	>480'	>480'	>480′	240-480'	>480'
144-62-7 79-21-0	OXALIC ACID, SATURATED SOLUTION PERACETIC ACID	10 I 39 I	>480' <10'	>480' <10'	>480' <10'	>480'	>480' 30-60'	>480' 60-120'	>480' 240-480'	>480' >480'	>480' 120-240'	<10' <10'	>480' 60-120'	>480' >480'
108-95-2	PHENOL, AQUEOUS SOLUTION	90 I	<10'	<10'	<10'	10-30′	78' <b>C</b>	120-240′	202'	>480' C		240-480'	60-120'	>480' C
108-90-7 7664-38-2	PHENYL CHLORIDE PHOSPHORIC ACID	100 I	<10' >480'	<10' >480'	<10'	2' C	<10' >480'	24' C	10-30' >480'	<10' >480'	10-30' >480'	>480' <10'	<10'	>480' >480'
7664-38-2 107-12-0	PROPIONITRILE	85 I 100 I	>480 <10'	>480° <10′	>480° C	>480 C	>480° C	>480° 60-120′	>480' 30-60'	>480° >480′	>480° 30-60°	>480'	>480° C	>480' C
57-55-6 107-98-2	PROPYLENE GLYCOL	100 I	>480' <10'	>480' <10'	>480'	>480' C	>480' 60-120'	>480' 120-240'	>480' 60-120'	>480' >480'	>480' 240-480'	120-240' 60-120'	>480' 30-60'	>480' >480'
107-98-2 110-86-1	PROPYLENE GLYCOL-1-METHYLETHER PYRIDINE	100 I 100 I	<10°	<10°	<10'	<10'	<10'	120-240' <10'	60-120′ 10′	>480°	10-30'	8' C		>480° >480'
1310-73-2	SODIUM HYDROXIDE	50 I	>480'	>480'	>480'	>480'	>480'	>480'	>480'	>480'	>480′	<10'	>480'	>480'
1310-73-2 7681-52-9	SODIUM HYDROXIDE SODIUM HYPOCHLORITE, AQUEOUS SOLUTION	100 s 15 l	>480' >480'	>480' >480'	>480' >480'	>480' >480'	>480' >480'	>480' >480'	>480' >480'	>480' >480'	>480' >480'	>480' <10'	>480' >480' C	>480' >480'
8052-41-3	STODDARD SOLVENT	100 I	60-120'	60-120'	120-240′	60-120'	240-480'	>480'	10-30'	<10'	>480'	>480′	120-240′	>480′
100-42-5 7664-93-9	STYRENE SULFURIC ACID	100 I 96 I	<10'	<10'	<10' 10-30'	<10'	19' C	10-30' 236' C	8' C	10-30'	31' C	>480′ C		>480' C
7664-93-9	SULFURIC ACID	50 I	>480′ C	>480′ C	>480′ C	>480′	>480′	>480′ C	>480′	>480′	>480′	<10′	>480′ C	>480′
7664-93-9 127-18-4	SULFURIC ACID TETRACHLOROETHYLENE	99 I 100 I	<10' <10'	<10'	<10'	30-60' 60-120'	10-30′	120-240' 240-480'	60-120' <10'	120-240′ 5′ C	120-240'	<10' >480'	120-240' 30-60'	>480' >480'
109-99-9	TETRAHYDROFURAN	100 I	<10′	<10′	<5′ <b>C</b>	3′ 🕻	<10′	15′ C	<10′	5′ 🕻	10-30′	52' C	<10′	>480′ C
7719-09-7 108-88-3	THIONYL CHLORIDE TOLUENE	100 I 100 I	<10'	<10'	<10'	<10'	<10′	<10'	<10'	60-120'	<10'	120-240' >480'	<10'	120-240' >480' C
79-01-6	TRICHLOROETHYLENE	100 I	<10′	<10′	<10′	4' C	<10′	10-30'	3' C	<5′ <u>C</u>		>480'	<10′	>480' C
1330-78-5	TRICRESYL PHOSPHATE, ISOMERIC MIXTURE TRIETHANOLAMINE	100 I	60-120' 120-240'	120-240' >480'	120-240' >480'	240-480' \_480'	>480' >480'	>480' >480'	>480' >480'	>480' >480'	>480'	>480' >480'	>480' >480'	>480' 240-480'
102-71-6	TRIETHYLAMINE	100 I 100 I	7' C	>480° 24′ C	>480°	>480' >480'	>480° 240-480'	>480' >480'	>480°	>480' 120-240'	>480' C >480'	>480' >480'	>480' 60-120'	240-480' >480'
121-44-8	WHITE SPIRIT	100 I	>480′	>480′	>480′	>480'	>480′	>480'	30-60′	10-30'	>480'	>480'	>480'	>480'
64742-88-7	AAI ENIE IEWRAEDIG PAINT	100 I	<10′	<10′	<5′ C	12' C	24'	58'	<10′	10-30′	98' C	>480′ 🖸		>480′ С
	XYLENE, ISOMERIC MIXTURE N-BUTANOL	100 I	60-120'	10-30'	56′	>480'	>480'	>480'	120' C	>480'	>400	60-120'	280' 🖸	>480'
64742-88-7 1330-20-7 71-36-3 110-54-3	N-BUTANOL N-HEXANE	100 I 100 I	240-480′	240-480′	>480′ C	>480′ 🕻	>480′ 🖸	>480′ C	<5′ <b>C</b>	<10′	>480′ C	>480′ C	57' C	>480' C
64742-88-7 1330-20-7 71-36-3	N-BUTANOL	100 I											57' C	

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 organisation 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 organisation.

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 organisation'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.

 PERMEATION BREAKTHROUGH TIMES ACCORDING TO EN ISO 374-3:2016 (MINUTES)

 0
 1
 2
 3
 4
 5
 6

 <10'</td>
 10-30'
 30-60'
 60-120'
 120-240'
 240-480'
 >480'

 Not recommended
 Splash protection
 Medium protection
 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 /cm²/min (as per EN ISO 374) or 0.1 μg /cm²/min (as per ASTM F739).

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