

		NORMALIZED BREAKTHROUGH TIME (MIN) Using BT criteria 0.1mg/cm ² /min				MAXIMUM PERMEATION RATE: Ug/cm ² /min			
CHEMICAL	Chemical Class	Sample#1	Sample#2	Sample#3	Sample#4	Sample#1	Sample#2	Sample#3	Sample#4
ACEIONE	Ketene	> 180	> 180	> 180	> 180	< 0.01	< 0.01	< 0.01	< 0.01
ACETONITRILE	Nitrile	> 180	> 180	> 180	> 180	< 0.01	< 0.01	< 0.01	< 0.01
AMMONIA(gas)	Basic Inorganic Compound	> 180	> 180	> 180	> 180	< 0.03	< 0.03	< 0.03	< 0.03
1,3-BUTADIENE(gas)	Hydrocarbon Gas	> 180	> 180	> 180	> 180	< 0.01	< 0.01	< 0.01	< 0.01
CARBONDISULFIDE	Sulfur Organic Compound	> 180	> 180	> 180	> 180	< 0.02	< 0.02	17.4	5.8
CHLORINE(gas)	Acidic Inorganic Gas	> 180	> 180	> 180	> 180	< 0.002	< 0.002	< 0.002	< 0.002
DICHLOROMETHANE	Chlorinated Hydrocarbon	> 180	153	> 180	171	< 0.03	< 0.85	< 0.03	< 0.3
DIETHYLAMINE	Amine	> 180	> 180	> 180	> 180	< 0.01	< 0.01	< 0.01	< 0.01
DIMETHYLFORMAMIDE	Amide	> 180	> 180	> 180	> 180	< 0.01	< 0.01	< 0.01	< 0.01
ETHYLACETATE	Ester	> 180	> 180	> 180	> 180	< 0.09	< 0.09	< 0.09	< 0.09
ETHYLENE OXIDE(gas)	Heterocyclic Compound	> 180	> 180	> 180	> 180	< 0.01	< 0.01	< 0.01	< 0.01
HEXANE	Aliphatic Hydrocarbon	> 180	> 180	> 180	> 180	< 0.01	< 0.01	< 0.01	< 0.01
HYDROGEN CHLORIDE(gas)	Inorganic Gas & Vapor	> 180	> 180	> 180	> 180	< 0.01	< 0.01	< 0.01	< 0.01
METHANOL	Alcohol	> 180	> 180	> 180	> 180	< 0.01	< 0.01	< 0.01	< 0.01
METHYLCHLORIDE(gas)	Halogen Compound Gas	> 180	> 180	> 180	> 180	< 0.02	< 0.02	< 0.02	< 0.02
NITROBENZENE	Nitrogen Organic Compound	> 180	> 180	> 180	> 180	< 0.01	< 0.01	< 0.01	< 0.01
SODIUM HYDROXIDE	Inorganic Base	> 180	> 180	> 180	> 180	< 0.1	< 0.1	< 0.1	< 0.1
SULFURIC ACID	Inorganic Acid	> 180	> 180	> 180	> 180	< 0.1	< 0.1	< 0.1	< 0.1
TETRACHLOROETHYLENE	Chlorinated hydrocarbon (olefin)	> 180	> 180	> 180	> 180	< 0.01	< 0.01	< 0.01	< 0.01
Tetrahydrofuran	Heterocyclic Ether	> 180	> 180	> 180	> 180	< 0.04	< 0.04	< 0.04	< 0.04
TOLUENE	Aromatic Hydrocarbon	> 180	> 180	> 180	> 180	< 0.01	< 0.01	< 0.01	< 0.01

Additional permeation data not part of NFPA 1991,2000 ed..		NORMALIZED BREAKTHROUGH TIME (MIN) Using BT criteria 0.1mg/cm ² /min				MAXIMUM PERMEATION RATE: Ug/cm ² /min			
CHEMICAL	Chemical Class	Sample#1	Sample#2	Sample#3	Sample#4	Sample#1	Sample#2	Sample#3	Sample#4
ACETIC ACID (ACAL)	Carboxylic Acid	> 480	> 480	> 480	> 480	N/A	N/A	N/A	N/A
ACRYLIC ACID	Carboxylic Acid	> 480	> 480	> 480	> 480	N/A	N/A	N/A	N/A
ACRYLONITRILE	Nitrile	160	136	136	144	34	34	36	35
ARSENIC ACID	Inorganic Acid	> 480	> 480	> 480	> 480	N/A	N/A	N/A	N/A
BROMINE (LIQUID)	Elements	444	400	420	421	1.3	99	30	43
CHROMIC ACID	Inorganic Acid	> 480	> 480	> 480	> 480	N/A	N/A	N/A	N/A
DIMETHYLHYDRAZINE	Hydrazine	240	232	288	253	2.1	2.6	1.8	2.2
EPICHLOROHYDRIN	Halogen Compound	216	196	216	209	38	37	32	74
ETHYLENE DICHLORIDE	Aliphatic Halogen Compound	188	120	144	151	48	48	45	47
HYDRAZINE	Hydrazine	> 480	> 480	> 480	> 480	0.03	N/A	0.002	0.01
HYDROFLUORIC ACID(48%)	Inorganic Acid	> 480	> 480	> 480	> 480	N/A	N/A	N/A	N/A
HYDROGEN FLUORIDE(99%)	Inorganic Acid	45	30	30	35	500	500	500	500
NITRIC ACID(70%)	Inorganic Acid	> 480	> 480	> 480	> 480	N/A	N/A	N/A	N/A
NITROGEN DIOXIDE	Inorganic Gases & Vapors	450	> 480	390	440	0.16	0.01	0.19	0.12
NITROGEN TETROXIDE	Inorganic Gases & Vapors	> 480	270	330	360	N/A	0.1	0.12	0.07
OLEUM(30%)	Inorganic Acid	> 480	> 480	> 480	> 480	N/A	N/A	N/A	N/A
TOLUENE DIISOCYANATE(TDI)	Aromatic Isocyanate	> 480	> 480	> 480	> 480	N/A	N/A	N/A	N/A

HYDROCARBONS (OILS & SOLVENTS)	POLY MAX	SUPERPOLY	POLYBLEND	STANDARD	HEARTLAND	BLUEMAX	KEYTONES AND ALDEHYDES	POLY MAX	SUPERPOLY	POLYBLEND	STANDARD	HEARTLAND	BLUEMAX	SALTS&ALKALIES	POLY MAX	SUPERPOLY	POLYBLEND	STANDARD	HEARTLAND	BLUEMAX
ASIM #1 Oil	E	E	E	G	G	E	Acetone	F	P	P	P	P	P	Ammonium	E	E	E	E	E	E
ASIM #3 Oil	E	E	E	G	G	E	Acetaldehyde	F	P	P	P	P	P	Ammonium Sulfate	E	E	E	E	E	E
Benzene	F	P	P	P	P	P	Benzaldehyde	P	P	P	P	P	P	Calcium Chloride	E	E	E	E	E	E
Benzyl Chloride	F	P	P	P	P	P	Butyraldehyde	G	P	P	P	P	P	Calcium Hypochlorite	E	E	E	E	E	E
Butane	E	F	F	P	F	F	Chloroacetone	P	P	P	P	P	P	Potassium Hydroxide	G	G	G	G	G	G
Carbon tetrachloride	G	F	F	G	F	F	Formaldehyde	E	E	E	E	E	E	Copper Chloride	G	E	G	G	G	E
Castor Oil	E	E	E	G	G	E	Furfural	P	P	P	P	P	P	Copper Sulfate	E	E	G	G	G	E
Chloroform	P	P	P	P	P	P	Methyl Ethyl Ketene	F	P	P	P	P	P	Ferric Chloride	E	G	G	G	G	G
Coconut Oil	G	G	G	F	F	G	ALCOHOLS						Potassium	E	E	E	G	G	E	
Cottonseed Oil	G	G	G	F	F	G	Amyl Alcohol	G	G	G	F	F	G	Sodium Hydroxide	E	E	E	E	E	E
Cutting Oil	E	E	E	G	G	E	Benzyl Alcohol	G	F	G	G	G	F	ORGANIC ESTERS						
Cyclo Hexane	E	G	G	F	F	G	Butyl Alcohol	G	G	G	F	F	G	Amyl Acetate	F	P	P	F	F	P
Gasoline (Cracked)	G	G	G	P	F	G	Diocetone Alcohol	G	F	F	F	F	F	Butyl Acetate	F	P	P	P	P	P
Gasoline (SR)	G	G	G	P	F	G	Diethanolamine	G	E	E	E	G	E	Di butyl Phthalate	G	F	F	F	F	F
Grease (All Kinds)	E	E	E	G	G	E	Ethylene Glycol	E	E	E	E	E	E	Ethyl Acetate	F	P	P	P	P	P
Hexane	G	G	G	P	F	G	Ethyl Alcohol	E	E	E	G	G	E	Ethyl Far mate	F	F	F	F	F	F
Hydraulic Oil	E	E	E	G	G	E	Glycerin	E	E	E	E	E	E	Methyl Acetate	F	P	P	F	P	P
Isooctane	G	G	G	P	P	G	Methyl Alcohol	E	G	G	G	G	G	Propyl Acetate	F	P	P	P	P	P
Kerosene (C-T)	G	G	G	F	F	G	Octyl Alcohol	G	E	G	F	F	E	Tricresyl Phosphate	E	G	G	G	G	G
Kerosene (PET)	G	E	E	F	F	E	Propyl Alcohol	G	E	E	G	G	E	Zinc Acetate 10%	E	E	E	E	E	E
Lord Oil (158F)	E	E	G	F	F	G	Triethanolamine	E	E	E	E	E	E	MISCELLANEOUS						
Linseed Oil	G	G	G	F	F	G	ORGANIC ACIDS						Acrylonitrile	F	F	F	F	F	F	
Methyl Cello solve	E	F	G	G	G	F	Acetic Acid	G	G	G	G	G	G	Aniline	F	P	P	P	P	P
Methyl Chloride	E	F	F	P	P	F	Carbolic Acid (Phenol)	F	F	F	G	F	F	Battery Acid	E	E	E	E	E	E
Methylene Chloride	F	P	P	P	P	P	Citric Acid	E	E	E	E	E	E	Butter (158°F)	E	G	G	F	G	G
Mineral Oil	G	G	G	F	F	G	Formic Acid	G	F	G	G	G	F	Buttermilk	E	E	E	E	E	E
Naphtha	G	G	G	P	P	G	Lactic Acid	E	E	E	E	E	E	Carbon Disulfide	G	F	F	F	F	F
Nitrobenzene	P	P	P	P	P	P	Malic Acid	E	G	G	E	G	G	Chlorophenol	F	F	F	G	F	F
Olive Oil	G	E	E	G	G	E	Oleic Acid	G	E	G	F	F	E	Chlorobenzene	F	P	P	P	P	P
Perchloroethylene	G	F	F	F	F	F	Stearic Acid (158°F)	G	E	G	F	F	E	Chlorox	E	E	E	E	E	E
Petroleum Oil	E	G	G	G	G	G	Tannic Acid	F	E	E	E	E	E	Cresol	F	P	F	G	F	P
Petroleum Solvent	G	G	G	F	F	G	INORGANIC ACIDS						Dichlorobenzene	F	P	P	P	P	P	
Pine Oil	G	E	E	G	G	E	Carbonic Acid	E	G	G	G	G	G	Dibenzyl Ether	F	F	F	F	F	F
Propane	E	F	F	P	P	F	Chlorine Water	F	G	G	G	G	G	Ethyl Ether	G	F	F	F	F	F
Toluene	G	P	P	P	P	P	Hydrobromic Acid	G	G	G	G	G	G	Hydrazine	E	G	G	G	G	G
Trichloroethylene	G	F	F	F	F	F	38%Hydrochloric Acid Cone	E	E	E	E	E	E	Hydrogen Peroxide 30%	E	E	E	E	E	E
Turpentine	G	G	G	G	G	G	48-52% Hydrochloric Acid	G	G	E	E	E	G	Milk	E	E	E	E	E	E
Vegetable Oil	G	G	G	F	F	G	Hydrogen Sulfide	G	G	G	G	G	G	Monoethanolamine	E	G	G	G	G	G
Xylene	G	P	P	P	P	P	Nitric Acid -10%	E	E	E	E	E	E	Morph line	P	P	P	P	P	P
Coal Tar Solvent	F	F	F	F	F	F	Nitric AcidCone-70%	F	F	G	G	G	F	Paint Remover	F	P	P	P	P	P
Beef Tallow (ISBF)	E	E	G	F	F	G	Perchloric Acid	F	F	G	F	F	F	Soaps	E	E	E	E	E	E
							Phosphoric Acid Come -85%	E	E	E	E	E	E	Tetrahydrofuran	F	P	P	P	P	P
							Sulfuric acid -50%	E	E	E	E	E	E	Key to Degradation Chart						
							Sulfuric Acid Cone-93%	P	P	P	P	P	P	E-Excellent	F-Fair					
													G-Good	P-Poor						