

CHEMICAL RESISTANCE LLDPE

CHEMICAL	CONC.	20 °C	60 °C	CHEMICAL	CONC.	20 °C	60 °C
Acetaldehyde	100%	S	NS	Ammonia, nitrate	Sat. sol.	S	S
Acetic acid	10%	S	S	Ammonia, sulfate	Sat. sol.	S	S
Acetic acid	60%	S	L	Ammonia, sulfide	Sol.	S	S
Acetic anhydride	100%	L	NS	Amyl acetate	100%	NS	NS
Acetone	100%	L	NS	Amyl alcohol	100%	L	L
Adipic acid	sat. sol.	S	S	Aniline	100%	NS	NS
Allyl alcohol	96%	-	-	Antimony tri-chloride	90%	-	-
Alums	Sol.	S	S	Aqua regia	HCl/HNO ₃ = 3/1	NS	NS
Aluminium Chloride	Sat. sol.	L	NS	Arsenic acid	Sat. sol.	S	S
Aluminium fluoride	Sat. sol.	S	S	Barium carbonate	Sat. sol.	S	S
Aluminium sulfate	Sat. sol.	S	S	Barium chloride	Sat. sol.	S	S
Ammonia, dry gas	100%	S	S	Barium hydroxide	Sat. sol.	S	S
Ammonia, liquid	100%	L	L	Barium sulfate	Sat. sol.	S	S
Ammonia, aqueous	Dil. sol.	S	S	Barium sulfide	Sol.	S	S
Ammonia, chloride	Sat. sol.	S	S	Beer	-	S	S
Ammonia, fluoride	Sol.	S	-	Benzaldehyde	100%	L	NS

CHEMICAL RESISTANCE LLDPE

CHEMICAL	CONC.	20 °C	60 °C	CHEMICAL	CONC.	20 °C	60 °C
Benzene	100%	NS	NS	Calcium sulfide	Dil. sol.	-	-
Benzoic acid	Sat. sol.	S	S	Carbon dioxide, dry gas	100%	-	-
Borax	Sat. sol.	S	S	Carbon disulfide	100%	NS	NS
Boric acid	100%	S	S	Carbon monoxide	100%	S	S
Bromine, dry gas	100%	NS	NS	Carbon tetrachloride	100%	NS	NS
Bromine, liquid	100%	NS	NS	Chlorine, dry gas	100%	L	NS
Butane, gas	100%	-	-	Chlorine, aqueous	Sat. sol.	NS	NS
Butanol	100%	S	L	Chloroacetic acid	Sol.	-	-
Butyric acid	100%	L	L	Chloroform	100%	NS	NS
Calcium carbonate	Sat. sol.	S	S	Chromic acid	20%	-	-
Calcium chlorate	Sat. sol.	S	S	Chromic acid	50%	-	-
Calcium chloride	Sat. sol.	S	S	Citric acid	Sat. sol.	S	S
Calcium hydroxide	Sat. sol.	S	S	Copper chloride	Sat. sol.	S	S
Calcium hypochlorite	Sol.	S	S	Copper nitrate	Sat. sol.	S	S
Calcium nitrate	Sat. sol.	S	S	Copper sulfate	Sat. sol.	-	-
Calcium sulfate	Sat. sol.	S	S	Cresylic acid (methyl benzoic acid)	Sat. sol.	-	-

CHEMICAL RESISTANCE LLDPE

CHEMICAL	CONC.	20 °C	60 °C	CHEMICAL	CONC.	20 °C	60 °C
Cyclohexanol	100%	S	S	Ferrous sulfate	Sat. sol.	S	S
Cyclohexanone	100%	NS	NS	Fluorine gas	100%	L	NS
Decahydronaphthalene	100%	L	NS	Fluorosilicic acid	40%	S	S
Dextrin	Sol.	S	S	Formaldehyde	40%	S	S
Diethyl ether	100%	NS	NS	Formic acid	50%	S	S
Dioctyl phthalate	100%	L	NS	Formic acid	90-100%	S	S
Dioxan	100%	-	-	Furfuryl alcohol	100%	L	NS
Ethandiol	100%	S	S	Gasoline, petroleum	-	L	NS
Ethanol	40%	S	L	Glucose	Sat. sol.	S	S
Ethyl acetate	100%	L	NS	Glycerol	100%	S	S
Ethylene chloride	100%	NS	NS	Glycolic acid	Sol.	S	S
Ferric Chloride	Sat. sol.	S	S	Heptane	100%	NS	NS
Ferric nitrate	Sol.	S	S	Hydrobromic acid	50%	S	S
Ferric sulfate	Sat. sol.	S	S	Hydrobromic acid	100%	S	S
Ferrous chloride	Sat. sol.	S	S	Hydrochloric acid	Conc.	S	S



CHEMICAL RESISTANCE LLDPE

CHEMICAL	CONC.	20 °C	60 °C	CHEMICAL	CONC.	20 °C	60 °C
Hydrocyanic acid	10%	S	S	Mercury	100	S	S
Hydrofluoric acid	4%	S	S	Methanol	100	S	L
Hydrofluoric acid	60%	S	L	Milk		S	S
Hydrogen	100%	S	S	Mineral oils		NS	NS
Hydrogen peroxide	30%	S	L	Molassess	Work.conc	S	S
Hydrogen peroxide	90%	S	NS	Nickel chloride	Sat. sol	S	S
Hydrogen sulfide, gas	100%	S	S	Nickel nitrate	Sat. sol	S	S
Lactic acid	100%	S	S	Nickel sulfate	Sat. sol	S	S
Lead acetate	Sat. sol.	S	S	Nicotinic acid	Dil. sol	S	L
Magnesium carbonate	Sat. sol.	S	S	Nitric acid	25	S	S
Magnesium chloride	Sat. sol	S	S	Nitric acid	50	L	NS
Magnesium hydroxide	Sat. sol	S	S	Nitric acid	75	NS	NS
Magnesium nitrate	Sat. sol	S	S	Nitric acid	100	NS	NS
Maleic acid	Sat. sol	S	S	Oil and fats		L	NS
Mercuric chloride	Sat. sol	S	S	Oleic acid	100	L	NS
Mercuric cyanide	Sat. sol	S	S	Orthophosphoric acid	50	S	S
Mercuric nitrate	Sol	S	S	Oxalic acid	Sat. sol	S	S

CHEMICAL RESISTANCE LLDPE

CHEMICAL	CONC.	20 °C	60 °C	CHEMICAL	CONC.	20 °C	60 °C
Oxygen	100	S	L	Potassium chromate	Sat. sol	S	S
Ozone	100%	L	NS	Potassium cyanide	Sol	S	S
Phenol	Sol	S	S	Potassium dichromate	Sat. sol	S	S
Phosphoric tri-chloride	100	S	L	Potassium ferrocyanide	Sat. sol	S	S
Picric acid	Sat. sol	S	L	Potassium fluoride	Sat. sol	S	S
Potassium bicarbonate	Sat. sol	S	S	Potassium hydrogen carbonate	Sat. sol	S	S
Potassium bisulfide	Sol	S	S	Potassium hydrogen sulfate	Sat. sol	S	S
Potassium bromate	Sat. sol	S	S	Potassium hydrogen sulfide	Sol	-	-
Potassium bromide	Sat. sol	S	S	Potassium hydroxide	10	S	S
Potassium carbonate	Sat. sol	S	S	Potassium hydroxide	Sol	S	S
Potassium chlorate	Sat. sol	S	S	Potassium hypochlorite	Sol	S	L
Potassium chloride	Sat. sol	S	S	Potassium nitrate	Sat. sol	S	S
Potassium chromate	Sat. sol	S	S	Potassium orthophosphate	Sat. sol	S	S
Potassium cyanide	Sol	S	S	Potassium perchlorate	Sat. sol	S	S
Potassium dichromate	Sat. sol	S	S	Potassium permanganate	20	S	S
Potassium ferrocyanide	Sat. sol	S	S	Potassium persulfate	Sat. sol	S	S

CHEMICAL RESISTANCE LLDPE

CHEMICAL	CONC.	20 °C	60 °C	CHEMICAL	CONC.	20 °C	60 °C
Potassium sulfate	Sat. sol	S	S	Sodium cyanide	Sat. sol	S	S
Potassium sulfide	Sol	S	S	Sodium ferricyanide	Sat. sol	S	S
Propionic acid	50	-	-	Sodium ferrocyanide	Sat. sol	S	S
Propionic acid	100	-	-	Sodium fluoride	Sat. sol	S	S
Pyridine	100	-	-	Sodium hydrogen carbonate	Sat. sol	S	S
Quinol (hydroquinone)	Sat. sol	S	S	Sodium hydrogen sulfite	Sol	S	S
Salicylic acid	Sat. sol	S	S	Sodium hydroxide	40	S	S
Silver acetate	Sat. sol	S	S	Sodium hydroxide	Sol	-	-
Silver cyanide	Sat. sol	S	S	Sodium hypochlorite	15	-	-
Silver nitrate	Sat. sol	S	S	Sodium nitrate	Sat. sol	S	S
Sodium benzoate	Sat. sol	S	S	Sodium nitrite	Sat. sol	S	S
Sodium bromide	Sat. sol	S	S	Sodium orthophosphate	Sat. sol	S	S
Sodium bicarbonate	Sat. sol	S	S	Sodium sulfate	Sat. sol	S	S
Sodium bisulfide	Sat. sol	S	S	Sodium sulfide	Sat. sol	S	S
Sodium chlorate	Sat. sol	S	S	Stearic acid	Sat. sol	S	L
Sodium chloride	Sat. sol	S	S	Sulphur dioxide, dry	100	S	S

CHEMICAL RESISTANCE LLDPE							
CHEMICAL	CONC.	20 °C	60 °C	CHEMICAL	CONC.	20 °C	60 °C
Sulphur trioxide	100	NS	NS	Vegetable oils		S	L
Sulphuric acid	10	S	S	Vinegar		S	S
Sulphuric acid	50	S	S	Water		S	S
Sulphuric acid	98	L	NS	Wines and spirits		S	S
Sulphuric acid	Fuming	NS	NS	Xylene	100	NS	NS
Sulphurous acid	30	S	S	Yeast	Sol	S	S
Tannic acid	Sol	S	S	Zinc carbonate	Sat. sol	-	-
Thionyl chloride	100	NS	NS	Zinc chloride	Sat. sol	S	S
Toluene	100	NS	NS	Zinc oxide	Sat. sol	S	S
Triethanolamine	Sol	S	-	Zinc sulphate	Sat. sol	S	S
Urea	Sol	S	S				
Urine		S	S				

Notes:

1. S: Satisfactory, geomembrane is resistance to the given chemical at the given concentration and temperature. No mechanical or chemical degradation is encountered.
2. L: Limited, geomembrane may be attacked by some factors, concentration, pressure and temperature should affect the performance of geomembrane.
3. NS: Not Satisfactory, geomembrane is not resistance to the given chemical, concentration and temperature. Mechanical or chemical degradation is encountered.
4. Sat. sol: Saturated aqueous solution, prepared at 20 C.
5. Sol: Aqueous solution at a concentration higher than 10%, but not saturated.
6. Dil. sol: Dilute aqueous solution at a concentration is equal to or lower than 10%.
7. Solution concentration listed are expressed as a percentage by weight, in general in the table, common chemical names are used.