

Chemical resistance

Chemical	Concentration	HDPE	PP
Acetaldehyde		3/3	3/4
Acetaldehyde	saturated	1/1	1/1
Acetamide	saturated	1/1	1/1
Acetic acid	50 %	1/1	1/1
Acetone		1/1	1/3
Acetonitrile		1/1	3/4
Acetophenone		0/0	1/3
Acetylene	100 %	1/0	1/0
Acrylonitrile		1/1	3/4
Adipic acid	saturated	1/1	1/1
Allyl alcohol	96 %	1/3	2/2
Aluminium chloride	10 %	1/1	1/1
Aluminium oxide	solid	1/1	1/1
Amino acids		1/1	1/1
Ammonia	25 %	1/1	1/1
Ammonium chloride	liquid	1/1	1/1
Ammonium hydroxide	5 %	1/1	1/1
Ammonium oxalate		1/1	1/2
Ammonium phosphate	each	1/1	1/1
Ammonium sulphide	each	1/1	1/1
Amyl acetate (pentyl acetate)		1/2	3/4
Amyl alcohol		1/1	1/1
Aniline		1/2	2/3
Antifreeze (car)		1/1	1/1
Aqua regia		4/4	4/4
Barium chloride	saturated	1/1	1/1
Benzaldehyde		1/3	1/4
Benzene		3/4	3/4
Benzoic acid	saturated	1/1	1/3
Benzyl alcohol		3/4	4/4
Boric acid	10 %	1/1	1/1
Brake fluid		1/0	1/1
Bromine		4/4	4/4
Bromobenzene		3/4	4/4
Butadiene		3/4	4/4
Butanol	technically pure	1/1	1/2
Butyl acetate		1/2	3/4
Butyric acid		3/4	4/4
Calcium chloride	liquid	1/1	1/1
Calcium hydroxide	conc.	1/1	1/1
Calcium hypochloride	saturated	1/1	1/1
Calcium sulphate	saturated	1/1	1/1
Carbazole		1/1	1/1
Carbon dioxide		1/1	1/1
Carbon disulfide		4/4	4/4
Carbon tetrachloride		3/4	4/4
Caustic soda	30 %	1/1	1/1

Chemical	Concentration	HDPE	PP
Cellosolve acetate		1/1	1/2
Chlorinated water		3/0	3/4
Chlorine	10 % wet	3/4	4/4
Chlorobenzene		3/4	3/4
Chloroform		3/4	2/3
Chromic acid	10 %	1/1	1/1
Citric acid	10 %	1/1	1/1
Cresol		3/4	2/3
Cyclohexane		3/4	3/4
Decahydronaphtalene (decalin)		1/2	2/4
Dibutyl phtalate		1/3	2/2
Dichlorobenzene		3/3	3/4
Dichloromethane		4/4	3/4
Diethylbenzene		3/4	4/4
Diethylether		3/4	4/4
Dimethylformamide		1/1	1/1
Dioxin 1.4		2/2	3/3
Ethanol	50 %	1/1	1/1
Ether		3/4	4/4
Ethyl acetate		1/3	1/3
Ethyl acrylate	100 %	4/4	4/4
Ethyl alcohol	96 %	1/1	1/1
Ethylbenzene		2/3	3/4
Ethylchloride		3/3	3/4
Ethyl cyanacetate		1/1	1/1
Ethylene glycol		1/1	1/1
Ethylene oxide		2/3	3/3
Ethyl ether	technically pure	3/0	4/4
Fluoride		1/1	1/1
Fluorine		4/4	4/4
Formaldehyde	40 %	1/2	1/2
Formic acid	98-100 %	1/1	1/3
Glacial acetic acid		0/0	1/3
Glucose	each	1/1	1/1
Glycerine	each	1/1	1/1
Heating oil		3/3	1/1
Heptane, n-		2/3	2/4
Hexane		2/3	2/3
Hydrazine hydrate	liquid	1/1	1/1
Hydrobromic acid	50 %	1/1	1/2
Hydrochloric acid	20 %	1/1	1/1
Hydrocyanic acid	liquid	1/1	1/1

Chemical	Concentration	HDPE	PP
Hydrofluoric acid	50 %	1/1	1/1
Iodine (I)-tincture		1/3	1/2
Isopropanol (isopropyl alcohol)	technically pure	1/1	1/1
Isopropyl acetate		1/2	2/3
Kerosine		2/2	3/3
Lactic acid	85 %	1/1	1/2
Lanolin	technically pure	1/3	1/3
Lead acetate	liquid	1/1	1/1
Lubricants		1/3	3/0
Machine oil	100 %	0/0	1/3
Menthol	100 %	1/3	1/3
Mercury	pure	1/1	1/1
Mercury chloride		1/1	1/1
Metal salts	dissolved	1/1	1/1
Methanol (methyl alcohol)		1/1	1/1
Methyl acetate	100 %	1/0	1/3
Methyl ethyl oleate		1/1	1/2
Methyl ethyl ketone		1/3	1/3
Mineral oil		1/1	1/3
Monochloroacetic acid		1/1	1/2
Nitrobenzene		3/4	2/4
Nitric acid	50 %	2/4	3/4
Octane, -n		1/1	1/1
Oil and fat, vegetable		1/3	1/3
Oxalic acid		1/1	1/1
Perchloric acid		2/4	2/4
Perchloroethylene		4/4	4/4
Petrol		2/3	3/4
Petroleum	technically pure	1/3	1/3
Phenol	100 %	2/3	1/2
Phenylhydrazine	technically pure	3/0	3/4
Phosphoric acid	85 %	1/1	1/2
Photographic developer		1/3	1/2
Photographic fixer		1/0	1/1
Plasticizer		1/3	1/3
Potassium hydroxide	50 %	1/1	1/1
Potassium perchlorate		1/3	1/1
Propane	gaseous	3/4	2/4

Chemical	Concentration	HDPE	PP
Propylene glycol		1/1	1/1
Propylene oxide		1/1	1/2
Pyridine		1/3	3/3
Resorcinol	saturated	1/1	1/1
Salicylic acid	saturated	1/1	1/1
Salicylic aldehyde		1/1	1/2
Sodium acetate	each	1/1	1/1
Sodium carbonate		1/1	1/1
Sodium chloride	each	1/1	1/1
Sodium dichromate		0/0	1/1
Sodium hydroxide	50 %	1/1	1/1
Sodium hypochlorite	15 %	1/1	1/1
Sodium hypochlorite	50 %	3/3	3/3
Sulphur dioxide	damp	1/1	1/3
Sulphuric acid	95 %	3/4	3/4
Silver acetate		1/1	1/1
Silver nitrate		1/1	1/2
Stearic acid	crystalline	1/3	1/3
Sulphides		2/3	(2)
Tetrahydrofuran		3/4	3/4
Thionyl chloride	technically pure	4/4	4/4
Trichloroethylene	100 %	3/4	4/4
Turpentine oil		2/2	4/4
Urea (carbamide & others)		1/1	1/1
Vinyl	technically pure	0/0	(3)

2 values are assigned to each medium, left number = value at +20°C, right number at +50°C temperature.

1 = very resistant / suitable, 2 = reasonably resistant / suitable, 3 = limited resistance, 4 = unsuitable,

0 = no value recorded.

These details represent suggestions and offer no guarantees. Legal claims may not arise due to the information provided.

HDPE high density polyethylene, **PP** polypropylene