

CHEMICAL RESISTANCE ACCORDING TO ISO/TR 10358 ISSUE 1993-06-01

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
acetaldehyde	technically pure	20	⊙	○	●
		40	○		⊙
		60			
		80			
		100			
acetaldehyde	40%, hydrous	20	●	⊙	●
		40	●	○	●
		60	●		⊙
		80	⊙		
		100	○		
acetone	technically pure	20	●	○	●
		40	●		●
		60	●		●
		80			
		100			
	up to 10% hydrous	20	●	○	●
		40	●		●
		60	●		●
		80			
		100			
acetonitrile		20		○	
		40			
		60			
		80			
		100			
acetophenone		20		○	
		40			
		60			
		80			
		100			
acrylonitrile	technically pure	20	●	○	●
		40	⊙		●
		60			●
		80			
		100			
crylic acid ethyl ester	technically pure	20	○	○	
		40			
		60			
		80			
		100			
crylic acid methyl ester	technically pure	20		○	
		40			
		60			
		80			
		100			
adipic acid	saturated, hydrous	20	●	○	●
		40	●	●	●
		60	●	○	●
		80	●		
		100			
allyl alcohol	96%	20	●	⊙	●
		40	●	○	●
		60	●		●
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
aluminium chloride	10%, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
	saturated	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100	⊙		
aluminium sulphate	10%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100			
formic acid*	up to 50% hydrous	20	●	●	●
		40	●	●	●
		60	⊙	⊙	●
		80			
		100			
ammonia*	gaseous, technically pure	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
ammonium acetate	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
ammonium carbonate	50%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
ammonium chloride	10%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
ammonium hydrogen fluoride	50%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
ammonium hydroxide	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
ammonium nitrate	10%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	⊙
		80	⊙		
		100			
	saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	⊙
		80	⊙		
		100			
ammonium phosphate	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100	●		
ammonium sulphate	10%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
	saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100	●		
ammonium sulphide	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
amyl acetate	technically pure	20	⊙	○	●
		40	⊙		●
		60	○		●
		80			
		100			
amyl alcohol*	technically pure	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100			
aniline	technically pure	20	⊙	○	⊙
		40			
		60			
		80			
		100			
aniline hydro- chloride	saturated, hydrous	20	●	○	●
		40	●		●
		60	⊙		⊙
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
antimony-trichloride*	90%, hydrous	20	●	●	●
		40	●	●	●
		60	●		●
		80			
		100			
arsenic acid	80%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100			
barium hydroxide	hydrous, saturated	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
barium salts	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100			
benzaldehyde	saturated, hydrous	20	●	○	●
		40			●
		60			●
		80			
		100			
gas*	free from lead and aromatic compounds	20	⊙	●	●
		40		●	●
		60	○	●	⊙
		80			
		100			
benzoic acid	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
benzol	technically pure	20	⊙	○	⊙
		40	○		⊙
		60			
		80			
		100			
benzyl alcohol*	technically pure	20	●	⊙	●
		40	●		●
		60	⊙		⊙
		80			
		100			
amber salt	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
beer	usual	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
lead acetate	hydrous, saturated	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
lead tetraethyl*	technically pure	20	●	●	●
		40			
		60			
		80			
		100			
borax	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
boric acid	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
wine spirits*	usual	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
bromine benzol	high	20	○	○	○
		40			
		60			
		80			
		100			
bromine	technically pure	20	○	○	○
		40			
		60			
		80			
		100			
bromine water	saturated, hydrous	20	○	●	○
		40			
		60			
		80			
		100			
bromhydric acid*	50%, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
butadiene°	technically pure	20	●	●	●
		40	●		
		60	●		
		80			
		100			
butane	technically pure	20	●	●	●
		40			
		60			
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
butandiol*	10%, hydrous	20	●	●	●
		40	●	⊙	●
		60	●		●
		80			
		100			
butanol*	technically pure	20	●	●	●
		40	●	●	●
		60	⊙	⊙	●
		80	○		
		100			
butanoic acid*	technically pure	20	●	●	●
		40			●
		60			⊙
		80			
		100			
butyl acetate	technically pure	20	⊙	○	●
		40			
		60			
		80			
		100			
butylene (liquid)	technically pure	20	○	●	○
		40			
		60			
		80			
		100			
butylene glycole*	technically pure	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
butylphenol, p-tertiary	technically pure	20	●	⊙	⊙
		40		○	
		60			
		80			
		100			
calciumup toulfit	cold saturated, hydrous	20		●	
		40		●	
		60		⊙	
		80			
		100			
calcium chloride	saturated, hydrous (each)	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
calcium hydroxide	saturated, hydrous (suspension)	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100			
calcium hypochlorite*	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●		●
		80			
		100			

Aggressive medium	Concentration	Temperature	Material			
			PP	PVC	PE	
calcium nitrate	50%, hydrous	20	●	●	●	
		40	●	●	●	
		60	●		●	
		80				
		100				
chlorine	97%, gas, moist	20	○	○	○	
		40				
		60				
		80				
		100				
	technically pure, dry	20	○	○	⊙	
		40			⊙	
		60			○	
		80				
		100				
	technically pure, liquid	20	○	○	○	
		40				
		60				
		80				
		100				
chloral hydrate	technically pure	20	⊙	○	●	
		40			●	
		60	○		●	
		80				
		100				
chloroethanol	technically pure	20	●	○	●	
		40	●		●	
		60	●		●	
		80				
		100				
chlorobenzene	technically pure	20	●	○	⊙	
		40				
		60				
		80				
		100				
chloroacetic acid, mono-*	50%, hydrous	20	●	●	●	
		40	●	●	●	
		60	●		●	
		80				
		100				
		technically pure	20	●	●	●
			40	●	●	●
			60	●	⊙	●
			80			
			100			
chloroethanol	technically pure	20		○		
		40				
		60				
		80				
		100				
chloroform	technically pure	20	⊙	○	○	
		40				
		60				
		80				
		100				

Aggressive medium	Concentration	Temperature	Material			
			PP	PVC	PE	
chloric acid*	10%, hydrous	20	○	●	●	
		40		●	●	
		60		⊙		
		80				
		100				
	20%, hydrous	20	○	●	⊙	
		40		●		
		60		⊙		
		80				
		100				
chloric acid	< 20%	20	○	●	⊙	
		40		●		
		60		⊙		
		80				
		100				
chlorosulphonic acid	technically pure	20	○	⊙	○	
		40				
		60				
		80				
		100				
chlorine water*	saturated	20	⊙	●	⊙	
		40		●	⊙	
		60		⊙		
		80				
		100				
hydrochloric acid°	technically pure, gaseous	20	●	●	●	
		40	●	●	●	
		60	●	⊙	●	
		80				
		100				
chrom alum	cold saturated, hydrous	20	●	●	●	
		40	●	●	●	
		60	●	●	●	
		80				
		100				
chromate*	up to 50%, hydrous	20	⊙	⊙	⊙	
		40	○	⊙	○	
		60		○		
		80				
		100				
		each, hydrous	20	⊙	⊙	⊙
			40			
			60			
			80			
			100			
clophen	technically pure	20		○		
		40				
		60				
		80				
		100				
crotonaldehyde	technically pure	20	●	○	●	
		40				
		60				
		80				
		100				

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
hydrocyanic acid	technically pure	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
cyclohexane ^o	technically pure	20	●	○	●
		40			●
		60			●
		80			
		100			
cyclohexanole*	technically pure	20	●	●	●
		40	●	●	●
		60	⊙	●	●
		80			
		100			
cyclohexanone	technically pure	20	●	○	●
		40	⊙		⊙
		60	⊙		⊙
		80			
		100			
densodrin		20		●	
		40		●	
		60		●	
		80			
		100			
dextrin	usual	20	●	●	●
		40		●	●
		60		●	●
		80			
		100			
dibutyl ether	technically pure	20	⊙	○	⊙
		40	○		○
		60			
		80			
		100			
dibutyl phthalate	technically pure	20	●	○	●
		40	⊙		⊙
		60	⊙		⊙
		80			
		100			
dibutyl sebazate	technically pure	20	●	○	●
		40			
		60			
		80			
		100			
dichlorethylene	technically pure	20	⊙	○	○
		40			
		60			
		80			
		100			
dichlorbenzene	technically pure	20	⊙	○	⊙
		40			
		60			
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
dichloroacetic*	technically pure	20	●	●	●
		40	●	●	●
		60	⊙	⊙	⊙
		80			
		100			
dichloroacetic acid methyl esters	50%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
dichloroacetic acid methyl esters	technically pure	20	●	○	●
		40	●		●
		60	●		●
		80			
		100			
diesel* ^o		20	⊙	●	●
		40		●	
		60			⊙
		80			
		100			
diethylamine	technically pure	20	●	⊙	
		40			
		60			
		80			
		100			
diethyl ether	technically pure	20	●	○	⊙
		40			
		60			
		80			
		100			
diglycolic acid aqueous*	30%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
diisobutylketone	technically pure	20	●	○	●
		40			
		60	○		○
		80			
		100			
N,N- dimethylaniline	technically pure	20		○	
		40			
		60			
		80			
		100			
dimethylformamide	technically pure	20	●	○	●
		40	●		●
		60	●		⊙
		80			
		100			
dimethylamine	technically pure	20	●	⊙	●
		40			
		60			⊙
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
dinonylphthalate	technically pure	20	●	○	⊙
		40			
		60			
		80			
		100			
		120			
dioctylphthalate*	technically pure	20	●	○	⊙
		40			
		60	○		
		80			
		100			
dioxane	technically pure	20	⊙	○	●
		40	⊙		●
		60	⊙		●
		80	○		
		100			
fertilizer salts	hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
iron salts	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100			
acetic acid*	technically pure, (glacial acetic acid)	20	●	⊙	●
		40	●	○	●
		60	⊙		⊙
		80	○		
		100			
	50%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
	10%, hydrous	20	●	●	●
		40	●	●	●
60		●	⊙	●	
80		●			
100		●			
acetic unhydride*	technically pure	20	●	○	●
		40	⊙		⊙
		60			
		80			
		100			
ethyl acetate	technically pure	20	●	○	●
		40	⊙		⊙
		60	⊙		⊙
		80			
		100			
ethyl alcohol*	technically pure 96%	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
ethyl alcohol*	technically pure	20	●	●	●
		40		●	●
		60		⊙	●
		80			
		100			
		120			
ethylbenzene	technically pure	20	⊙	○	
		40			
		60	○		
		80			
		100			
ethyl chloride	technically pure	20	⊙	○	⊙
		40			
		60			
		80			
		100			
dicloroethane	technically pure	20	⊙	○	⊙
		40			
		60			
		80			
		100			
ethylenedi- amine	technically pure	20	●	⊙	●
		40			●
		60			●
		80			
		100			
ehtylenedi- amine*	technically pure	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100	●		
ethyle oxide	technically pure, liquid	20	⊙	○	○
		40			
		60			
		80			
		100			
fatty alcohol sulphonate*	hydrous	20	●	●	●
		40	●	●	●
		60	⊙	⊙	●
		80			
		100			
fatty acids >C6*	technically pure	20	●	●	●
		40	●	●	●
		60	●	●	⊙
		80			
		100			
fluorine	technically pure	20			
		40	○	○	○
		60			
		80			
		100			
hydrofloric acids°	up to 40%, hydrous	20	●	●	●
		40	●	⊙	●
		60	●	⊙	⊙
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
hydrofluoric acids ^o	50% hydrous	20	●	●	●
		40	●		●
		60	●		⊙
		80			
		100			
	70%, hydrous	20	●	●	●
		40			⊙
		60			
		80			
		100			
formaldehyde*	40%, hydrous	20	●	●	●
		40	●	●	●
		60			●
		80			
		100			
formamide	technically pure	20	●	○	●
		40	●		●
		60	●		●
		80			
		100			
photo emulsion*		20	●	●	●
		40	●	●	●
		60			
		80			
		100			
film developer*	usual	20	●	●	●
		40	●	●	●
		60		⊙	⊙
		80			
		100			
photo fixing baths*	usual	20	●	●	●
		40	●	●	●
		60		⊙	
		80			
		100			
frigen 12-	technically pure	20	○	●	○
		40			
		60			
		80			
		100			
fruit juices*		20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100			
furfuryl alcohol*	technically pure	20	●	○	●
		40			●
		60	⊙		●
		80			
		100			
gelatin	each, hydrous	20	●	●	●
		40	●	●	●
		60	●		●
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
tanner extracts* (vegetable)	usual	20	●	●	●
		40			
		60			
		80			
		100			
tannic acid (tannin)	each, hydrous	20	●	●	●
		40	●		●
		60	●		●
		80			
		100			
glucose (dextrose)	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
glycerin	technically pure	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100	●		
aminoacetic acid*	10%, hydrous	20	●	●	●
		40	●	●	●
		60			
		80			
		100			
glycolic acid	37% hydrous	20	●	●	●
		40			●
		60			●
		80			
		100			
urea*	up to 30% hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
yeast	each, hydrous, suspension	20	●	●	●
		40	●	●	●
		60	●		●
		80			
		100			
fuit oil		20	⊙	●	⊙
		40	○	⊙	○
		60			
		80			
		100			
n-heptane*	technically pure	20	●	●	●
		40			
		60	⊙		⊙
		80			
		100			
n-hexane*	technically pure	20	●	●	●
		40			
		60	⊙		⊙
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
hydracine hydrate*	hydrous	20	●	●	●
		40	●		●
		60	●		●
		80			
hydroquinone	GL	20		●	
		40		●	
		60			
		80			
hydroxy- lamine sulphate	each, hydrous	20	●	●	●
		40	●	●	●
		60	●		●
		80			
iso butyl acetate	technically pure	20		○	
		40			
		60			
		80			
isooctane*	technically pure	20	●	●	●
		40			
		60	⊙		⊙
		80			
isopropanol*	technically pure	20	●	●	●
		40	●		●
		60	●		●
		80	●		
isopropyl- ether	technically pure	20	⊙	○	⊙
		40			
		60	○		○
		80			
tincture of iodine	6,5% iodine in ethanol	20	●	○	●
		40			
		60			○
		80			
potassium acetate*	GL	20		●	
		40		●	
		60		●	
		80			
potassium hydroxide	50% hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
potassium- aluminium sulphate (alum)	50% hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
potassium bichromate*	saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
potassium borat	10% hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
potassium bromate	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	⊙
		80	●		
potassium bromide	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
potassium chlorate*	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
potassium chloride	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
potassium chromate*	cold saturated, hydrous	20	●	●	●
		40	●	●	
		60	●	●	
		80			
potassium cyanide	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
potassium iodide	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
potassium nitrate	50%, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
potassium perchlorate*	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
potassium permanganate*	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	⊙
		80			
		100			
potassium persulphate*	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
potassium phosphate	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100			
potassium sulphate	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
hexafluorosilic acid°	32% hydrous	20	●	●	●
		40		●	●
		60		●	●
		80			
		100			
carbon dioxide	technically pure, dry	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100			
carbonic acid	technically pure, moist	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
coconut oil alcohol*	technically pure	20	●	●	●
		40	●	⊙	●
		60	⊙		⊙
		80			
		100			
coconut oil*	technically pure	20	●	●	●
		40	●	●	●
		60	●	⊙	⊙
		80			
		100			
nitrohydrochloric acid*	concentration 1:3 up to 1:6	20	○	●	○
		40		⊙	
		60			
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
cresols	cold saturated, hydrous	20	●	⊙	●
		40	●		●
		60			
		80			
		100			
cuprous salts	each, hydrous	20	●	●	●
		40	⊙	●	●
		60	○	⊙	●
		80			
		100			
lanolin* (wool fat)	technically pure	20	●	●	●
		40	●	⊙	●
		60	●		●
		80			
		100			
linseed oil*	technically pure	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
illuminating gas, benzol free		20	●	●	●
		40			
		60			
		80			
		100			
liquers		20	●	●	●
		40		●	●
		60			
		80			
		100			
magnesium salts	each hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
corn oil*	technically pure	20	●	⊙	●
		40	●		●
		60	⊙		⊙
		80			
		100			
maleic acid*	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
marmelade		20	●	●	●
		40	●	⊙	●
		60	●	⊙	●
		80	●		
		100	●		
molasses		20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
molasses flavour		20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
methane (natural gas)	technically pure	20	●	●	●
		40			
		60			
		80			
		100			
methanol* (methyl alcohol)	each	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
methyl acetate	technically pure	20	●	○	●
		40	●		
		60	⊙		
		80			
		100			
methylamine	32%, hydrous	20	●	⊙	●
		40			
		60			
		80			
		100			
methyl bromide	technically pure	20	○	○	⊙
		40			
		60			
		80			
		100			
methyl chloride	technically pure	20	○	○	⊙
		40			
		60			
		80			
		100			
methylene chloride	technically pure	20	⊙	○	⊙
		40			
		60			
		80			
		100			
methyl ethyl ketone	technically pure	20	●	○	●
		40	⊙		⊙
		60	⊙		○
		80			
		100			
milk*		20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100	●		
lactic acid*	10%, hydrous	20	●	●	●
		40	●	⊙	●
		60	●	○	●
		80	●		
		100	●		

Aggressive medium	Concentration	Temperature	Material			
			PP	PVC	PE	
mineral oils, free from aromatic compounds		20	●	●	●	
		40	●	●	●	
		60	⊙	●	⊙	
		80				
		100				
mineral water		20	●	●	●	
		40	●	●	●	
		60	●	●	●	
		80	●			
		100	●			
mixed acid		20	○	●	○	
		-acid sulphur 48%	40		⊙	
		-nitric acid 49%	60		○	
		-water 3%	80			
			100			
		50%	20	○	⊙	○
		50%	40		○	
		0%	60			
			80			
			100			
mixed acid		20	○	⊙	○	
		87%	40			
		3%	60			
			80			
			100			
		50%	20	○	●	○
		31%	40			
		19%	60			
			80			
			100			
mixed acid		20	○	●	○	
		33%	40		⊙	
		17%	60			
			80			
			100			
		10%	20	○	●	⊙
		20%	40		●	
		70%	60			
			80			
			100			
mixed acid		20	○	⊙	⊙	
		-nitric acid 15%	3 parts	40		
		-hydrofluoric acid 3%	1 part	60		
		-acid sulphur 18%	2 parts	80		
			100			
mixed acid		20	●	●	●	
		-acid sulphur 30%	40	⊙	●	⊙
		-phosphoric acid 60%	60			
		-water 10%	80			
			100			
mono chlorine acetic acid ethyl ester	technically pure	20	●	○	●	
		40	●		●	
		60	●		●	
		80				
		100				

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
mono chlorine acetic acid methyl ester	technically pure	20	●	○	●
		40	●		●
		60	●		●
		80			
		100			
Morpholene	technically pure	20	●	○	●
		40	●		●
		60	●		●
		80			
		100			
Mowilith D	usual	20	●	●	●
		40			
		60			
		80			
		100			
naphthalene	technically pure	20	●	○	●
		40			
		60			⊙
		80			
		100			
sodium acetate	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100	●		
sodium benzoate	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
sodium bromate	each, hydrous	20	●	●	●
		40	⊙	⊙	⊙
		60			
		80			
		100			
sodium bromide	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
sodium carbonate (soda)	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100	●		
sodium chlorate*	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
sodium chloride (table salt)	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
sodium chlorite*	diluted, hydrous	20	●	●	●
		40	●		
		60	⊙		
		80			
		100			
sodium chromate*	diluted, hydrous	20	●	●	●
		40	●	●	
		60		⊙	
		80			
		100			
sodium disulphite	each, hydrous	20	●	●	●
		40		●	
		60		⊙	
		80			
		100			
sodium dithionite (-hydrosulfit)	10%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
sodium fluoride	cold saturated, hydrous	20	●	●	●
		40		●	
		60			
		80			
		100			
sodium bicarbonate	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100			
sodium hydrogen sulphate (Natriumup toulfat)	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
sodium hydrogen sulphite (Natriumup toulfit)	each, hydrous	20	●	●	●
		40	●	⊙	●
		60	●	○	●
		80			
		100			
sodium hypochloride* (bleaching liquor)	12,5% activ chlorine, hydrous	20	⊙	●	⊙
		40	○	●	○
		60		⊙	
		80			
		100			
sodium iodide	each, hydrous	20	●	●	●
		40		●	
		60		⊙	
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
sodium nitrate (salpeter)	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
sodium nitrite	cold saturated, hydrous	20	●	●	●
		40			
		60			
		80			
		100			
sodium oxalate	cold saturated, hydrous	20	●	●	●
		40		●	
		60		⊙	
		80			
		100			
sodium perborate	GL	20	ng	ng	ng
		40			
		60			
		80			
		100			
sodium perchlorate	GL	20	ng	ng	ng
		40			
		60			
		80			
		100			
sodium persulphate*	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
sodium phosphate	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
sodium silicate	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
sodium sulphate (Glauber's salt)	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100			
sodium sulphide	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
sodium sulphite	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
sodium thiosulphate (fixing salt)	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
caustic soda	up to 10%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
	up to 40%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
up to 50%, hydrous	20	●	●	●	
	40	●	●	●	
	60	●	⊙	●	
	80	●			
	100	●			
surfactants*	up to 5%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	
		80			
		100			
nickel salt	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
nitrobenzene	technically pure	20	●	○	●
		40	●		●
		60	●		⊙
		80			
		100			
nitrous fumes	diluted, moist, dry	20	●	●	●
		40	⊙		●
		60	○	⊙	●
		80			
		100			
nitrotoluene (o-,m-,p-)	technically pure	20	●	○	●
		40	●		●
		60	⊙		⊙
		80			
		100			
fruit pulp		20	●	●	●
		40	●		●
		60	●		●
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
fruit wine		20	●	●	●
		40			
		60			
		80			
		100			
fats and oils*, vegetable		20	●	●	●
		40	●	⊙	⊙
		60	⊙		
		80			
		100			
oleum vapours*	low	20	○	●	○
		40			
		60			
		80			
		100			
olive oil*		20	●	●	●
		40	●	●	●
		60	●	●	⊙
		80	●		
		100			
oleic acid	technically pure	20	●	●	●
		40	●	●	●
		60	⊙	●	⊙
		80			
		100			
oxalic acid*	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
oxygen*	up to 2%, in air	20	⊙	●	⊙
		40	○		○
		60			
		80			
		100			
	cold saturated, hydrous	20	⊙	●	⊙
		40	○	●	○
		60			
		80			
		100			
palmitic acid*	technically pure	20	⊙	●	⊙
		40			
		60	○		
		80			
		100			
palm oil* (palm kernel oil)		20	●	●	●
		40	●	○	●
		60	⊙		⊙
		80			
		100			
paraffin emulsion	usual, hydrous	20	●	●	●
		40	●	●	●
		60	⊙		⊙
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
paraffin oil		20	●	●	●
		40	●	●	●
		60	⊙	⊙	●
		80			
		100			
perchloroethylene (tetrachloroethylene)	technically pure	20	⊙	○	⊙
		40			
		60			
		80			
		100			
perchloric acid*	10%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
	70%, hydrous	20	⊙	⊙	●
		40	○		⊙
		60			○
		80			
		100			
petroleum ether*	technically pure	20	●	●	●
		40	●	●	⊙
		60	⊙	●	⊙
		80			
		100			
petroleum	technically pure	20	●	●	●
		40	⊙		●
		60	⊙		⊙
		80			
		100			
phenol*	up to 10%, hydrous	20	●	●	●
		40	●	⊙	●
		60	●		⊙
		80			
		100			
	up to 90%, hydrous	20	●	⊙	●
		40	●		●
		60	●		⊙
		80			
		100			
phenylhydrazine	technically pure	20	⊙	○	⊙
		40			
		60			
		80			
		100			
phenylhydrazine-hydrochloride	hydrous	20	●	⊙	
		40	⊙		
		60	⊙		
		80			
		100			
phosgene*	technically pure, liquid	20	⊙	○	
		40			
		60			
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
phosgene*	technically pure, gaseous	20	⊙	●	⊙
		40		⊙	
		60		⊙	
		80			
		100			
phosphor chloride:*	technically pure	20	●	○	●
		40			
		60	⊙		⊙
		80			
		100			
-phosphortri-chloride	technically pure	20	ng	ng	ng
		40			
		60			
		80			
		100			
-phosphor-penta-chloride	technically pure	20	ng	ng	ng
		40			
		60			
		80			
		100			
phosphoric acid	up to 30%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100			
	up to 50%, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
85%, hydrous	20	●	●	●	
	40	●	●	●	
	60	●	●	⊙	
	80	●			
	100	●			
phthalic acid*	saturated, hydrous	20	●	●	●
		40	●	⊙	●
		60	●	○	●
		80			
		100			
picric acid*	1%, hydrous	20	●	●	●
		40			
		60			
		80			
		100			
potassium carbonate	cold saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●		
		80			
		100			
compressed air, oil emulsive		20	⊙	⊙	●
		40			●
		60			
		80			
		100			
propane	technically pure, liquid	20	●	●	●
		40			
		60			
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
propane	technically pure, gaseous	20	●	●	●
		40			
		60			
		80			
		100			
propanol,* n- and iso-	technically pure	20	●	●	●
		40	●	⊙	●
		60	●	⊙	●
		80			
		100			
propargyl alcohol*	7%, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
propanoic acid*	50%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
	technically pure	20	●	●	●
		40	⊙	⊙	⊙
		60	⊙		⊙
		80			
		100			
propylene glycol*	technically pure	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
pyridine	technically pure	20	⊙	○	●
		40	⊙		⊙
		60	⊙		⊙
		80			
		100			
quicksilver	rein	20	●	●	●
		40			
		60			
		80			
		100			
quicksilver salts	cold, saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
ramasit	usual	20		●	
		40		●	
		60		●	
		80			
		100			
suet- emulsion,* sulphurized	usual	20	●	●	●
		40			
		60			
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
nitric acid*	6,3%, hydrous	20	●	●	●
		40		●	●
		60	⊙	●	●
		80			
		100			
	up to 40%, hydrous	20	⊙	●	⊙
		40		●	
		60	○	⊙	○
		80			
		100			
	65%, hydrous	20	○	⊙	⊙
		40		⊙	○
		60		○	
		80			
		100			
85%	20		○		
	40				
	60				
	80				
	100				
100%	20	○	○	○	
	40				
	60				
	80				
	100				
salt acid °-	5%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	⊙		
		100			
	10%, hydrous	20	●	●	●
		40	●	●	●
		60	⊙	⊙	●
		80	⊙		
		100			
	up to 30%, hydrous	20	●	●	●
		40	⊙	●	●
		60	⊙	⊙	●
		80	○		
		100			
36%, hydrous	20	●	●	●	
	40	⊙	●	●	
	60	○	⊙	●	
	80				
	100				
dioxxygen	technically pure	20	●	●	●
		40		●	●
		60	⊙	●	⊙
		80			
		100			
lubricating grease*		20	⊙	●	●
		40		●	●
		60		●	⊙
		80			
		100			

Aggressive medium	Concentration	Temperature	Material			
			PP	PVC	PE	
sulphur	technically pure	20	●	⊙	●	
		40	●	○	●	
		60	●		●	
		80	●			
		100				
sulphur dioxide	technically pure, dry	20	●	●	●	
		40	●	●	●	
		60	●	●	●	
		80				
		100				
	each, moist	20	●	●	●	
		40	●	●	●	
		60	●	⊙	●	
		80				
		100				
carbon disulphide	technically pure	20	⊙	○	⊙	
		40				
		60				
		80				
		100				
	sodium sulphide		20	●	●	●
			40	●	●	●
			60	●	⊙	●
			80			
			100			
acid sulfur*	up to 40%, hydrous	20	●	●	●	
		40	●	●	●	
		60	●	⊙	●	
		80				
		100				
	up to 60%,* hydrous	20	●	●	●	
		40	●	●	●	
		60	●	●	●	
		80				
		100				
up to 80%, hydrous	20	20	●	●	●	
		40	●	●	●	
		60	⊙	●	⊙	
		80				
		100				
	90%, hydrous*	20	⊙	●	⊙	
		40		●		
		60				
		80				
		100				
96%, hydrous*	20	○	●	○		
	40		●			
	60		⊙			
	80					
	100					

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
hydrogen sulphide	technically pure	20	●	●	●
		40	●	●	●
		60	●	●	⊙
		80			
		100			
	saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
sulfurous acid	saturated, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
seawater		20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
soap solution*	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
silver salt	cold, saturated, hydrous	20	●	●	●
		40	●	●	●
	suspension	60	●	⊙	●
		80			
		100			
silicone oil		20	●	●	●
		40	●	⊙	●
		60	●	○	●
		80	●		
		100	●		
spindle oil		20	●	⊙	⊙
		40	⊙		
		60	○		⊙
		80			
		100			
spinning bath acids* containing CS2	100 mg CS2/l	20	●	●	●
		40		●	
		60			
	200 mg CS2/l	80			
		100			
700 mg CS2/l		20	●	○	●
		40			
		60			
		80			
		100			
		120			
		20	●	○	●
		40			
		60			
		80			
		100			
		120			
		20	●	○	●
		40			
		60			
		80			
		100			
		120			
		20	●	○	●
		40			
		60			
		80			
		100			
		120			
		20	●	○	●

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
spirituous beverages	ca. 40% (ethyl alcohol)	20	●	●	●
		40			
		60			
		80			
		100			
starch solution	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
starch syrup	usual	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
stearic acid*	technically pure	20	●	●	●
		40		●	
		60	⊙	●	⊙
		80			
		100			
sebum*	technically pure	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
oil of turpentine*	technically pure	20	○	●	⊙
		40		⊙	⊙
		60			
		80			
		100			
tetrachlo- romethane	technically pure	20	○	○	○
		40			
		60			
		80			
		100			
tetrahydro- furan	technically pure	20	○	○	⊙
		40			
		60			
		80			
		100			
tetrahydro- naphthalin	technically pure	20	○	○	⊙
		40			
		60			
		80			
		100			
toluol	technically pure	20	⊙	○	⊙
		40	○		
		60			○
		80			
		100			
trieth- anolamine*	technically pure	20	●	⊙	●
		40			●
		60			●
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
tributyl phosphate	technically pure	20	●	○	●
		40	●		●
		60	●		●
		80			
		100			
trichlo- roethane	technically pure	20	⊙	○	⊙
		40			
		60			
		80			
		100			
trichloroeth- ylene	technically pure	20	⊙	○	○
		40			
		60			
		80			
		100			
trichloroacetic acid*	technically pure	20	●	⊙	●
		40	●		⊙
		60	●		○
		80			
		100			
	50%, hydrous	20	●	●	●
		40	●	⊙	●
		60	●		●
		80			
		100			
1, 1, 2- trichlore- 1, 2, 2-tri-fluoroethane* (freon 113)	technically pure	20		●	
		40		●	
		60			
		80			
		100			
tri-kresyl phosphate*	technically pure	20	●	○	●
		40			●
		60	⊙		●
		80			
		100			
tri-octyl phosphate*	technically pure	20	●	○	⊙
		40			
		60			
		80			
		100			
urine		20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
vaseline	technically pure	20	●	⊙	⊙
		40		○	
		60	⊙		○
		80			
		100			
vinyl acetate	technically pure	20	●	○	
		40			
		60	⊙		
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
vinyl chloride	technically pure	20		○	
		40			
		60			
		80			
		100			
viscose-spinning solution		20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100			
wax alcohol*	technically pure	20	⊙	●	⊙
		40	○	●	○
		60		●	
		80			
		100			
detergent*	for suds usual	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100			
water (distilled, deionized, completely desalinated)		20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100	●		
water, drinking water chlorinated		20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100	●		
water, sewage water without organic solvents		20	●	●	●
		40	●	●	●
		60	●		●
		80	●		
		100			
water, condensaton		20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100			
hydrogen	technically pure	20	●	●	●
		40	●	●	●
		60	●	●	●
		80			
		100	○		
hydrogen peroxide*	10%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
	30%, hydrous	20	●	●	●
		40	●	●	●
		60	⊙		●
		80			
		100			

Aggressive medium	Concentration	Temperature	Material		
			PP	PVC	PE
	50%, hydrous	20		●	●
		40			
		60			
		80			
		100			
	90%, hydrous	20	○	●	●
		40			
		60			○
		80			
		100			
wine, red and white	usual	20	●	●	●
		40	●		●
		60	●		●
		80			
		100			
wine vinegar* (vinegar)	usual	20	●	●	●
		40	●	●	●
		60	●	●	●
		80	●		
		100			
acidity of wine	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
xylol	technically pure	20	○	○	○
		40			
		60			
		80			
		100			
zinc salts	each, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80			
		100			
citric acid	10%, hydrous	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		
sugar syrup	usual	20	●	●	●
		40	●	●	●
		60	●	⊙	●
		80	●		
		100	●		

KEY

●	resistant
⊙	limited resistant
○	not resistant
ng	not tested
*	stress cracking
GL	saturated solution
°	moisture expansion/softening