

# Chemical Resistance Chart

## KEY:

**1 = Excellent**  
**2 = Good**  
**3 = Partially Resistant**  
**4 = Non-Resistant**  
**\* No available tests**

## Note:

**The 1st number refers to the condition at + 20°C (+68°F)**  
**The 2nd number refers to the condition at + 60°C (+140°F)**

CHEMICAL	High Density Polyethylene		Polypropylene		Polystyrene	
	+20°C	+60°C	+20°C	+60°C	+20°C	+60°C
1.4-dioxane	2	2	3	3	4	4
acetaldehyde	2	3	2	4	4	4
acetic acid (5%)	1	1	1	1	1	2
acetic acid (50%)	1	1	1	1	2	2
acetone	1	1	1	2	4	4
allyl alcohol	1	1	1	1	2	3
aluminum salts	1	1	1	1	2	2
amino acids	1	1	1	1	1	1
ammonia	1	1	1	1	2	3
ammonium carbonate	1	1	1	1	2	3
ammonium phosphate	1	1	1	1	2	2
ammonium sulphate	1	1	1	1	2	2
amyl chloride	3	4	4	4	4	4
aniline	2	2	2	3	4	4
benzene	3	3	3	4	4	4
benzine	2	2	2	3	4	4
benzyl alcohol	2	2	2	3	4	4
boric acid	1	1	1	1	1	2
bromine	4	4	4	4	4	4
butyric acid	2	3	3	4	4	4
calcium chloride	1	1	1	1	1	1
calcium hydroxide saturated	1	1	1	1	2	2
calcium sulphate	1	1	1	1	2	2
carbon tetrachloride	3	3	3	4	4	4
chlorobenzene	4	4	4	4	4	4
chloroform	2	3	2	3	4	4
chlorine 10% in water	2	3	3	4	4	4
chromic acid (10%)	1	1	1	1	1	1
chromic acid (50%)	1	1	2	3	3	3
citric acid (10%)	1	1	1	1	1	2
cresol	3	4	2	3	4	4
cyclohexane	2	3	3	3	3	4
diethyl ketone	2	2	2	2	4	4
dimethylsulphoxide	1	1	1	1	1	2
ethanol (95%)	1	1	1	1	1	1
ethyl acetate	2	2	2	3	4	4
ethyl benzene	2	3	3	4	4	4
ethylene glycol	1	1	1	1	1	1
ethylene oxide	2	3	3	3	4	4
ferric chloride	1	1	1	1	1	1
fluoride	1	1	1	1	2	2
fluorine	2	4	3	4	4	4
formaldehyde (10%)	1	1	1	1	3	4
formaldehyde (40%)	1	2	1	2	4	4
glacial acetic acid	1	1	1	2	4	4
glycerol	1	1	1	1	1	1
heating oil	2	3	1	2	4	4
hexane	2	3	2	3	4	4
hydrochloric acid (5%)	1	1	1	1	1	1
hydrochloric acid (20%)	1	1	1	1	1	1
hydrochloric acid (35%)	1	1	1	2	3	3
hydrocyanic acid	1	1	1	1	2	2
hydrofluoric acid	2	4	3	4	4	4
hydrofluoric acid (4%)	1	1	1	2	2	3
hydrofluoric acid (48%)	1	1	1	2	4	4
hydrogen peroxide (3%)	1	1	1	1	1	2
hydrogen peroxide (30%)	1	1	1	2	1	2
isobutyl alcohol	1	1	1	1	2	2
isopropyl acetate	1	2	2	3	4	4
isopropyl alcohol	1	1	1	1	1	2

CHEMICAL	High Density Polyethylene		Polypropylene		Polystyrene	
	+20°C	+60°C	+20°C	+60°C	+20°C	+60°C
kerosene	2	2	2	3	4	4
lactic acid (10%)	1	1	1	1	2	2
lactic acid (90%)	1	1	1	1	2	2
lead acetate	1	1	1	1	1	1
metallic salts, dissolved	1	1	1	1	2	2
methanoic acid (100%)	1	1	1	2	3	3
methanol	1	1	1	1	3	4
methyl ethyl ketone	2	2	2	3	4	4
methyl propyl ketone	1	2	2	3	4	4
methylene chloride	2	3	3	4	4	4
mineral oil	1	1	1	1	1	1
n-amyl acetate	2	3	3	3	4	4
n-butyl alcohol	1	1	1	2	2	2
n-octane	1	1	1	1	4	4
nitric acid (10%)	1	1	1	1	2	4
nitric acid (50%)	2	2	3	4	4	4
nitric acid (70%)	2	4	4	4	4	4
oleic acid	2	2	2	3	2	2
oxalic acid	1	1	1	1	1	2
ozone	2	3	3	3	4	4
perchloric acid	2	4	2	4	2	3
perchloric ethylene	4	4	4	4	4	4
phenol	2	2	2	3	4	4
phosphoric acid (10%)	1	1	1	1	2	2
phosphoric acid (85%)	1	1	1	2	1	2
phosphorus trichloride	2	2	2	3	4	4
potassium acetate	1	1	1	1	1	1
potassium bromide	1	1	1	1	1	1
potassium carbonate	1	1	1	1	1	1
potassium hydroxide (5%)	1	1	1	1	2	2
potassium hydroxide, concentrated	1	1	1	1	2	2
potassium permanganate	1	1	1	1	3	3
propylene glycol	1	1	1	1	1	1
pyridine	2	3	3	4	4	4
salicylic acid, saturated	1	1	1	1	1	2
silver acetate	1	1	1	1	2	2
silver nitrate	1	1	1	2	2	3
sodium carbonate	1	1	1	1	1	1
sodium chloride, saturated	1	1	1	1	1	1
sodium dichromate	1	1	1	1	1	1
sodium hydroxide (1%)	1	1	1	1	2	2
sodium hydroxide (50%)	1	1	1	1	2	2
sodium hypochlorite	1	1	1	1	2	2
sodium nitrate	1	1	1	1	1	1
sodium sulphate	1	1	1	1	1	1
sucrose	1	1	1	1	1	1
sulphide	2	3	3	4	4	4
sulphuric acid (6%)	1	1	1	1	1	2
sulphuric acid (20%)	1	1	1	2	1	2
sulphuric acid (60%)	1	1	1	2	2	4
sulphuric acid (98%)	2	2	3	4	4	4
tannic acid	1	1	1	1	2	2
tetrahydrofuran	3	3	3	3	4	4
toluene	2	2	3	4	4	4
trichloroacetic acid	2	3	3	4	4	4
trichlorethane	3	4	4	4	4	4
turpentine oil	2	3	2	3	4	4
urea	1	1	1	1	1	2
xylene	3	3	3	4	4	4
zinc chloride	1	1	1	1	1	1

**These chemical and environmental resistance ratings for thermoplastics are provided for comparison purposes only. No assurance can be implied that any JDR Enterprises Inc. products will meet the ratings listed. End users should conduct their own evaluation of JDR Enterprises Inc. products to ensure satisfactory compatibility with any environmental or physical conditions to which they may be exposed.**