## **Chemical Resistance Chart**

## KEY:

1 = Excellent

2 = Good

3 = Partially Resistant

4 = Non-Resistant

\* No available tests

Polyethylene	High Density											
14-dioxane		_			Polystyrene							
acetadehyde	CHEMICAL	+20°C	+60°C	+20°C	+60°C	+20°C	+60°C					
acetic acid (5%)  acetic acid (50%)  1	1.4-dioxane	2	2	3	3	4	4					
Section	acetaldehyde	2	3	2	4	4	4					
acetone	acetic acid (5%)	1	1	1	1	1	2					
allyri alcohol	acetic acid (50%)	1	1	1	1	2	2					
Suminum salts	acetone	1	1	1	2	4	4					
amino acids    1	allyl alcohol	1	1	1	1	2	3					
ammonia	aluminum salts	1	1	1	1	2	2					
ammonium carbonate	amino acids	1	1	1	1	1	1					
ammonium phosphate   1   1   1   1   1   2   2   2	ammonia	1	1	1	1	2	3					
ammonium sulphate	ammonium carbonate	1	1	1	1	2	3					
amylichloride  3   4   4   4   4   4   4   4   4   4	ammonium phosphate	1	1	1	1	2	2					
September   Sept	ammonium sulphate	1	1	1	1	2	2					
Denzene	amyl chloride	3	4	4	4	4	4					
Denzine	aniline	2	2	2	3	4	4					
Denzyl alcohol	benzene	3	3	3	4	4	4					
Dorric acid	benzine	2	2	2	3	4	4					
bromine	benzyl alcohol	2	2	2	3	4	4					
Dutyric acid	boric acid	1	1	1	1	1	2					
calcium chloride  1	bromine	4	4	4	4	4	4					
calcium hydroxide saturated	butyric acid	2	3	3	4	4	4					
calcium sulphate         1         1         1         1         1         2         2           carbon tetrachloride         3         3         3         4	calcium chloride	1	1	1	1	1	1					
carbon tetrachloride	calcium hydroxide saturated	1	1	1	1	2	2					
chlorobenzene	calcium sulphate	1	1	1	1	2	2					
chloroform  2	carbon tetrachloride	3	3	3	4	4	4					
chlorine 10% in water	chlorobenzene	4	4	4	4	4	4					
chromic acid (10%)	chloroform	2	3	2	3	4	4					
chromic acid (50%)	chlorine 10% in water	2	3	3	4	4	4					
citric acid (10%)         1         4	chromic acid (10%)	1	1	1	1	1	1					
cresol         3   4   2   3   3   4   4   4   4   4   4   4   4	chromic acid (50%)	1	1	2	3	3	3					
Cyclohexane	citric acid (10%)	1	1	1	1	1	2					
diethyl ketone         2 2 2 2 2 2 4 4 4           dimethylsulphoxide         1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	cresol	3	4	2	3	4	4					
dimethylsulphoxide         1	cyclohexane	2	3	3	3	3	4					
ethanol (95%)  ethanol (95%)  1	diethyl ketone	2	2	2	2	4	4					
ethyl acetate	dimethylsulphoxide	1	1	1	1	1	2					
ethyl benzene	ethanol (95%)	1	1	1	1	1	1					
ethylene glycol	ethyl acetate	2	2	2	3	4	4					
ethylene oxide	3		3	3	4	4	4					
ferric chloride fluoride fluoride fluorine formaldehyde (10%) fluorine formaldehyde (40%) formaldehyde (40%) fluorine fluoride fluorine fl	ethylene glycol	1	1	1	1	1	1					
fluoride	ethylene oxide	2	3	3	3	4	4					
fluorine	ferric chloride	1	1	1	1	1	1					
formaldehyde (10%) formaldehyde (40%) formaldehyde		1	1	1	1	2	2					
formaldehyde (40%)  formaldehyde (40%)  glacial acetic acid  glycerol  1	fluorine	2	4	3	4	4	4					
glacial acetic acid         1   1   1   1   2   4   4           glycerol         1   1   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   1   1   1           hydrochloric acid (20%)         1   1   1   1   1   1   1   1   1   1	, , ,	1	•	1		3	4					
glycerol		1	2	1		4	4					
heating oil 2   3	glacial acetic acid	1	1	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         1   1         2   2           isopropyl acetate         1   2         2   3         4   4		1	1	1	1	1	1					
hydrochloric acid (5%)       1   1   1   1   1   1   1   1   1   1		2	3	1	2	4	4					
hydrochloric acid (20%)	hexane	2	3	2	3	4	4					
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       1   1       2   2         isopropyl acetate       1   2       2   3       4   4		1	1	1	1	1	1					
hydrocyanic acid	hydrochloric acid (20%)	1	1	1		1						
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       1   1       2   2         isopropyl acetate       1   2       2   3       4   4	, ,	1	1	1	2	3	3					
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	-				1	2	2					
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			<u>'                                      </u>			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		1	1	1	2	2	3					
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		1	1	1	2	4	4					
isobutyl alcohol		1	1	1		1						
isopropyl acetate 1   2   2   3   4   4	, ,	1	1	1	2	1						
, ,,	isobutyl alcohol	1	1	1	1	2	2					
			2	'		4						
	isopropyl alcohol	1	1	1	1	1	2					

## 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)

	High Density											
	_	hylene	Polypropylene		Polystyrene							
CHEMICAL	-	l +60°C		+60°C	+20°C	-						
kerosene	2	1 2	2	1 3	4	4						
lactic acid (10%)	1	<u>2</u>   1	1	3   1	2	2						
lactic acid (10%)	1		1		2	2						
		1 1		1		_						
lead acetate	1	1	1	1	1	1						
metallic salts, disolved	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	1 2	2	3	2	2						
oxalic acid	1	<u>.                                    </u>	1	<u>.</u> I 1	1	2						
ozone	2	1 3	3	1 3	4	4						
perchloric acid	2	1 4	2	1 4	2	3						
perchloric ethylene	4	1 4	4	1 4	4	4						
phenol	2	1 2	2	1 3	4	4						
phosphoric acid (10%)	1	l 1	1	l 1	2	2						
phosphoric acid (10%)	1		1	1 2	1	2						
		·		1								
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	1 1	2	2						
sodium hydroxide (50%)	1	1 1	1	1 1	2	2						
sodium hypochlorite	1	1 1	1	1 1	2	2						
sodium nitrate	1	1	1	<u>.</u>   1	1	1						
sodium sulphate	1	1	1	<u>.                                    </u>	1	1						
sucrose	1	·   1	1	<u> </u>	1	1						
sulphide	2	3	3	·   4	4	4						
sulphuric acid (6%)	1	3   1	1	<del>1</del>   1	1	2						
sulphuric acid (0%)	1		1	1 2	1	2						
sulphuric acid (60%)	1		1	2	2	4						
sulphuric acid (98%)	2	1		2	4	4						
tannic acid (98%)	1	2	3	<del>4</del>   1	2	2						
		•				l.						
tetrahydrofuran	3	3	3	3	4	4						
toluene	2	2	3	4	4	4						
trichloracetic 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.