

Chemical Compatibility Chart

Please note that these chemical compatibility charts are for reference only. Many factors can affect the chemical resistance of a given plastic product; it is your responsibility to do a test under your own conditions to ensure that the product you are using is fully compatible with your usage.

LDPE & HDPE resistance listed by chemical	
1,4-dioxane	LDPE / HDPE at 20C° show little or no damage after 30 days of constant exposure. LDPE at 50C° shows some effect after 7 days of constant exposure.
Acetaldehyde	LDPE / HDPE at 20C° show little or no damage after 30 days of constant exposure. HDPE at 50C° shows some effect after 7 days of constant exposure. LDPE - immediate damage may occur.
Acetic Acid 5 %	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Acetic Acid, glacial 50%	LDPE / HDPE at 20C° show little or no damage after 30 days of constant exposure. LDPE at 50 C° - immediate damage may occur.
Acetone	LDPE / HDPE at 20C°-50C° - damage may occur. Not recommended for continuous use.
Allyl Alcohol	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Aluminum salts	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Amino acids	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Ammonia	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Ammonium carbonate, saturated	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Ammonium phosphate	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Ammonium sulphate	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Amyl chloride	HDPE at 20C° shows some effect after 7 days of constant exposure. HDPE at 50C° & LDPE at 20C°-50C° - immediate damage may occur. Not recommended for continuous use.
Aniline	LDPE / HDPE at 20C° show little or no damage after 30 days of constant exposure. HDPE at 50C° shows some effect after 7 days of constant exposure.
Benzene	LDPE / HDPE at 20C°-50C° - damage may occur. Not recommended for continuous use.
Benzyl alcohol	LDPE / HDPE at 50C° - immediate damage may occur. HDPE at 20C° shows some effect after 7 days of constant exposure.
Boric acid	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Bromine	LDPE / HDPE at 50C° - immediate damage may occur. HDPE at 20C° shows some effect after 7 days of constant exposure.
Butyric acid	LDPE / HDPE at 50C° - immediate damage may occur. HDPE at 20C° shows some effect after 7 days of constant exposure.
Calcium chloride	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Calcium hydroxide saturated	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Calcium sulphate	No data is available at this time.
Carbon tetrachloride	HDPE at 20C° shows little or no damage after 30 days. LDPE at 20C° & HDPE at 50C° show some effect after 7 days of constant exposure. LDPE at 50C° not recommended.
Chlorobenzene	Immediate damage may occur. Not recommended for continuous use.
Chloroform	LDPE / HDPE at 20C° show some effect after 7 days. At -50C° - immediate damage may occur. Not recommended for continuous use.
Chlorine 10% in water	LDPE / HDPE at 20C° shows little or no damage after 30 days. LDPE at 50C° shows damage and is not recommended.
Chromic acid 10%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Chromic acid 50%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Citric acid 10%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Cresol	HDPE at 20C° shows some effect after 7 days. LDPE at 20C°-50C° & HDPE at 50C° show immediate damage -- not recommended for continuous use.
Cyclohexane	LDPE / HDPE at 50C° - immediate damage may occur. LDPE / HDPE at 20C° show some effect after 7 days of constant exposure.
Diethyl ketone	LDPE / HDPE at 20C°-50C° - damage may occur. Not recommended for continuous use.
Dimethylsulfoxide	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.

Ethanol 95%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Ethyl acetate	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Ethyl benzene	HDPE at 20C° shows some effect after 7 days. LDPE at 20C°-50C° & HDPE at 50C° show immediate damage -- not recommended for continuous use.
Ethylene glycol	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Ethylene oxide	HDPE at 20C° shows little or no damage after 30 days of constant exposure. LDPE at 20C° and LDPE/ HDPE at 50C° show some effect after 7 days.
Ferric chloride	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Fluoride	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Fluorine	HDPE at 20C° shows little or no damage after 30 days of constant exposure. LDPE at 20C° shows some effect after 7 days. Neither HDPE or LDPE are recommended at 50C°.
Formaldehyde 10%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Formaldehyde 40%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Glycerol	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Heating oil	No further data is available at this time.
Hexane	HDPE at 20C° shows little or no damage after 30 days continuous use and at 50 C° shows some effect after 7 days. LDPE not recommended at any temperature.
Hydrochloric acid 5%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Hydrochloric acid 20%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Hydrochloric acid 35%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Hydrocyanic acid	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Hydrofluoric acid	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Hydrofluoric acid 4%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Hydrofluoric acid 48%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Hydrogen peroxide 3%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Hydrogen peroxide 30%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Isobutyl alcohol	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Isopropyl acetate	No data is available at this time.
Isopropyl alcohol	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Kerosene	LDPE / HDPE at 20C° show some effect after 7 days. LDPE / HDPE not recommended at 50C°, as immediate damage may occur.
Lactic Acid 10 %	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Lactic Acid 90 %	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Lead acetate	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Metallic salts, dissolved	No data is available at this time.
Methanoic acid 100%	No data is available at this time.
Methanol	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Methyl ethyl ketone	Immediate damage may occur. Not recommended for continuous use.
Methyl propyl ketone	HDPE at 20C° shows some effect after 7 days. LDPE at 20C°-50C° & HDPE at 50C° - Immediate damage may occur. Not recommended for continuous use.
Methylene chloride	HDPE at 20C° shows some effect after 7 days. LDPE at 20C°-50C° & HDPE at 50C° - Immediate damage may occur. Not recommended for continuous use.
Mineral oil	LDPE / HDPE at 20C° show little or no damage after 30 days of constant exposure. LDPE at 50C° may show immediate damage and is not recommended.
n-amyl acetate	LDPE / HDPE at 20C° show little or no damage after 30 days of constant exposure. LDPE at 50C° shows some effect after 7 days or constant exposure.
n-butyl alcohol	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
n-octane	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Nitric acid 50 %	LDPE at 20C° shows little or damage after 30 days. HDPE at 20C° & LDPE at 50C° show effect after 7 days. HDPE at 50C° shows immediate damage and is not recommended.
Nitric acid 70 %	LDPE / HDPE at 20C° show some effect after 7 days. Both at 50C° show immediate damage -- not recommended.
Oleic acid	HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure. LDPE at 20C°-50C° shows immediate damage and is not recommended.
Oxalic acid	LDPE at 20C° shows some effect after 7 days. HDPE at 20C° and both LDPE / HDPE at 50C° show little or no damage after 30 days.
Ozone	LDPE / HDPE at 20C° show little or no damage after 30 days of constant exposure. LDPE / HDPE at 50C° show immediate damage -- not recommended.
Perchloric acid	LDPE / HDPE at 20C° show little or no damage after 30 days of constant exposure. LDPE / HDPE at 50C°

	show immediate damage -- not recommended.
Perchloric ethylene	LDPE / HDPE at 20C°-50C° show immediate damage -- not recommended.
Phenol	LDPE / HDPE at 20C°-50C° show immediate damage -- not recommended.
Phosphoric acid 10%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Phosphoric acid 85%	LDPE / HDPE at 20C° show little or no damage after 30 days of constant exposure. LDPE at 50C° shows immediate damage and is not recommended.
Phosphorous trichloride	LDPE / HDPE at 20C° show little or no damage after 30 days of constant exposure. LDPE at 50C° has no data available. HDPE at 50C° shows some effect after 7 days.
Potassium acetate	No data is available at this time.
Potassium bromide	No data is available at this time.
Potassium carbonate	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Potassium hydroxide 5 %	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Potassium hydroxide concentrated	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Potassium permanganate	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Propylene glycol	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Pyridine	Immediate damage may occur. Not recommended for continuous use.
Salicylic acid, saturated	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Silver acetate	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Silver nitrate	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Sodium carbonate	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Sodium chloride, saturated	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Sodium dichromate	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Sodium hydroxide 1%	LDPE at 20C°-50C° shows little or no damage after 30 days of constant exposure. HDPE at 20C°-50C° shows some effect after 7 days.
Sodium hydroxide 50%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Sodium hypochlorite 15%	HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure. LDPE at 20C° is suitable but at 50C° shows some effect after 7 days.
Sodium nitrate	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Sodium sulphate	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Sucrose	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Sulphide	No additional information is available at this time.
Sulfuric acid 6%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Sulfuric acid 20%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Sulfuric acid 60%	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Sulfuric acid 98%	LDPE at 20C°-50C° shows little or no damage after 30 days of constant exposure. HDPE at 20C° shows effect after 7 days -- not recommended for use at 50C°.
Tannic acid	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Tetrahydrofuran	LDPE / HDPE at 20C° show some effect after 7 day of constant exposure. LDPE / HDPE at 50C° show immediate damage -- not recommended.
Toluene	LDPE at 20C° show some effect after 7 day of constant exposure. HDPE at 20C°-50C° & LDPE at 50C° show immediate damage -- not recommended.
Trichloroacetic acid	LDPE / HDPE at 20C° show some effect after 7 day of constant exposure. LDPE / HDPE at 50C° show immediate damage -- not recommended.
Trichlorethane	Immediate damage may occur. Not recommended for continuous use.
Turpentine oil	HDPE -57-1.html > LDPE / HDPE at 20C° show some effect after 7 day of constant exposure. LDPE / HDPE at 50C° show immediate damage -- not recommended.
Urea	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.
Xylene	HDPE at 20C° shows some effect after 7 day of constant exposure. LDPE at 20-50C° & HDPE at 50C° show immediate damage -- not recommended.
Zinc chloride	LDPE / HDPE at 20C°-50C° show little or no damage after 30 days of constant exposure.