

NITROPHYL® Compatibility Guide

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Rogers Nitrophenyl® NBR floats have been specifically designed to resist petroleum based liquids such as gasoline, liquid propane and motor oil, but are also resistant to a wide variety of other substances. The compatibility guide below gives an indication of Nitrophenyl suitability in different environments. Other variables such as part geometry, operating temperatures and pressures and part density can contribute to the part performance. Rogers' technical experts can assist in determining the correct formulation, float density and other design considerations to provide you with a custom solution for your needs.

Acids		Ketones	
Ammonium nitrate	Excellent	Acetone	Poor
Citric, saturated solution	Excellent	Cyclohexanone	Poor
Formic, saturated solution	Fair	Isophorone	Poor
Hydrochloric	Good	Mesityl oxide	Poor
Magnesium Chloride 15%	Excellent	Methyl ethyl ketone	Poor
Napthenic	Good	Methyl isobutyl ketone	Poor
Nitric <30%	Good	Miscellaneous	
Nitric >30%	Poor	Distilled Water	Excellent
Oleic	Good	Hydrogen peroxide 30%	Good
Phosphoric	Excellent	Neutral Salts	
Sulfuric <50%	Good	Calcium acetate	Excellent
Sulfuric >50%	Poor	Calcium chloride	Excellent
Zinc Chloride	Excellent	Calcium nitrate	Excellent
Zinc Sulfate	Excellent	Potassium acetate	Excellent
Alcohols		Potassium chloride	Excellent
Benzyl	Poor	Potassium nitrate	Excellent
Butyl	Good	Sodium chloride	Excellent
Ethanolamine	Excellent	Sodium nitrate	Excellent
Ethyl	Good	Sodium sulfate	Excellent
Ethylene glycol	Excellent	Nitrogen Derivatives	
Glycerol	Excellent	1-Nitropropane	Poor
Methyl	Good	Acetamide	Good
Propyl	Good	Ammonia, liquefied	Excellent
Triethanolamine	Excellent	Aniline oil	Poor
Aldehydes		Nitrobenzene	Poor
Acetaldehyde	Poor	Nitroethane	Poor
Benzaldehyde	Poor	Pyridine oil	Poor
Formaldehyde	Good	Petroleum Based Products/Hydrocarbons	
Furfural	Poor	Aviation Gas	Excellent
Alkaline Salts		Benzene	Poor
Ammonium carbonate	Fair	Benzene Chloride	Poor
Sodium bisulfite	Excellent	Butane, liquefied	Excellent
Sodium borate	Excellent	Carbon tetrachloride	Fair
Sodium carbonate	Excellent	Chloroform	Poor
Sodium phosphate	Excellent	Diesel Fuel	Excellent
Sodium silicate	Excellent	Diphenyl oxide	Poor
Alkaline Solutions		Dowtherm	Poor
Ammonium hydroxide (Concentrated)	Good	Ethanol	Fair
Calcium hydroxide (Saturated)	Good	Ethyl benzene	Excellent
Potassium hydroxide	Excellent	Ethylene dichloride	Poor
Sodium hydroxide	Excellent	Fuel Oil	Excellent
Esters		Hexane	Excellent
Acetate, amyl	Fair	Hydraulic oil	Excellent
Acetate, butyl	Fair	Jet Fuel	Excellent
Acetate, ethyl	Poor	Kerosene	Excellent
Phosphate, tributyl	Poor	Methanol <10% *	Good
Phosphate, tricresyl	Fair	Motor oil	Excellent
Phthalate, dibutyl	Poor	Naphta	Excellent
Phthalate, dioctyl	Good	Permachlor	Poor
Ricinoleate, butyl acetyl	Excellent	Regular Premium Gasoline	Excellent
Salicylate, methyl	Poor	Skelly Solvent	Excellent
Stearate, butyl	Excellent	Stoddard's Solvent	Excellent
Ethers		Styrene	Poor
Ethyl	Fair	Toluene	Poor
Isopropyl	Good	Trichloroethylene	Poor
		Turpentine	Good
		Xylene	Poor

* For higher percentage of material, we recommend our NITROPHYL-M material.

For more information on NITROPHYL floats or to discuss an application, please contact a technical representative.