

FlowLine

Application and Corrosion Data

Nylon 11 Coatings

www.flowlinevalves.com

Nylon 11 Coating

Introduction

Generally Nylon 11 has good resistance to bases, salts, salt solutions, marine environment, oils, greases, and other petroleum products. Areas of high success of Nylon II are calcium chloride, zinc chlorides. Electrolytic corrosion in an Industrial atmosphere and salt-water environments has no effect on Nylon 11.

When considering Nylon 11 for a particular application, the following should be considered: resistance to organic acids, mineral salts, and oxidizing agents vary with each chemical group. Temperature and chemical concentrations will affect resistance from attack of the line media. Mixing of chemicals can produce a negative reaction to Nylon 11.

Corrosion Ratings:

- E - Excellent
- G - Good
- U - Unsatisfactory
- O - Not Tested

	<u>Concentration</u>	68° (20°C)	104 F° (40F)	140 F° (60°C)
Acetaldehyde		E	G	U
Acetic Acid	5	E	E	E
Acetic Acid	10	E	E	G
Acetic Acid	50	G	O	U
Acetic Anhydride		G	U	U
Acetone	Pure	E	E	G
Acetylene		E	E	E
Aluminum Sulfate	Sat. Solution	E	E	E
Ammonia	Liquid or Gas	E	E	E
Amonium Hydroxide	Concentrated	E	E	E
Ammonium Nitrate		E	E	E
Ammonium Sulfate	Sat. Sol.	E	E	G
Amyl Acetate		E	E	E
Aniline	Pure	G	U	U
Barium Chloride		E	E	E
Beer		E	O	O
Benzaldehyde		E	G	U
Benzene		E	E	G
Benzyl Alcohol		G	U	U
Bromine		U	U	O

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	<u>Concentration</u>	68° (20°C)	104 F° (40F)	140 F° (60°C)
Butane		E	E	E
Butyl Alcohol		E	G	U
Calcium Arsenate	Concentrated	E	E	E
Calcium Chloride	Sat. Sol.	E	E	E
Calcium Nitrate		E	O	O
Camphor		E	O	O
Carbon Disulfide		E	G	U
Carbon Tetrachloride		G	U	O
Chlorine		U	U	U
Chloroform		G	U	U
Chromic Acid	10	U	U	U
Cider		E	O	O
Citric Acid		E	E	G
Copper Sulfate		E	E	E
Cresol		U	U	U
Cyclohexane		E	E	G
Cyclohexanol		E	G	U
Cyclohexanone		E	G	U
DD.T. Preparations		E	O	O
Diammonium Phosphate		E	E	G
Dichloroethylene		G	U	O
Diethanoisimine	20	E	E	E
Diethyl Ether		E	O	O
Diocetylphosphate		E	E	E
Diocetylphthalate		E	E	E
Ethanol	Pure	E	G	U
Ethyl Acetate		E	E	E
Ethylene Chlorhydrin		U	U	O
Ethylene Glycol		E	E	G

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Ethyl Oxide		E	E	G
Fatty Acid Esters		E	E	E
Fluorine		U	U	U
Formaldehyde		E	G	U
Formic Acid		U	U	U
Freon 12		E	E	O
Freon 22		E	E	O
Freon 502		E	E	O
Fruit Juice		E	E	O
Furfuryl Alcohol		E	E	G
Gas (Coal)		E	E	O
Gasoline (High Octane)		E	E	E
Glucose		E	E	E
Glycerine		E	E	G
Glycol		E	E	G
Greases		E	E	E
Heptane		E	E	E
Hydrogen		E	E	E
Hydrogen Peroxide	20	E	G	O
Hydrochloric Acid	10	E	G	U
Hydrochloric Acid	20	G	U	U
Hydroxy Quinoline		E	O	O
Isocyanates		G	O	O
Isopropyl Alcohol		E	O	O
Kerosene		E	E	E
Lactic Acid		E	E	E
Linseed Cake		E	E	E
Magnesium Chloride	50	E	E	E
Mercury		E	E	E

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Methane		E	E	E
Methanol	Pure	E	G	U
Methyl-Cellosolve		E	E	E
Methyl Acetate		E	E	E
Methyl Bromide		E	U	O
Methyl Chloride		E	U	O
Methyl Sulfate		E	G	O
Methyl Ethyl Ketone		E	E	G
Methyl Isobutyl Ketone		E	E	G
Milk		E	E	E
Monochlorobenzene		G	U	U
Mustard		E	O	O
Naptha		E	E	E
Napthalene		E	E	E
Nitric Acid	All Concentrations	U	U	U
Oils Crude		E	E	E
Oils Refined		E	E	E
Oleic Acid		E	E	E
Oxalic Acid		E	E	G
Oxygen		E	E	G
Perchloroethylene		G	U	O
Phenol		U	U	U
Phosphoric Acid		E	G	U
Picric Acid		G	U	U
Potassium Carbonate		E	E	G
Potassium Hydroxide		E	G	U
Potassium Nitrate		E	G	U
Potassium Permanganate		U	U	O
Potassium Sulfate		E	E	E

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	<u>Concentration</u>	68° (20°C)	104 F° (40F)	140 F° (60°C)
Propane		E	E	E
Pydraul F9		E	E	E
Pyridine	Pure	G	U	U
Soap Solution		E	O	O
Sodium Carbonate	Concentrate	E	E	G
Sodium Chloride	Saturated	E	E	E
Sodium Hydroxide	50	E	G	U
Sodium Hypochlorite	Concentrated	G	U	U
Sodium Hypochlorite	Dilute Commercial Gas	E	G	U
Sodium Sulfide		E	G	G
Stearin		E	E	E
Stearic Acid		E	E	E
Styrene Monomer		E	E	O
Sulfuric Anhydride		G	U	U
Tartaric Acid		E	E	E
Tetraethyl Lead	Saturated	E	E	O
Tetrahydrofuran		E	E	G
Toluene		E	E	G
Trichloroethane		G	U	O
Trichloroethylene		G	U	O
Tricreayl Phosphate		E	E	E
Tributyl Phosphate		E	E	E
Trisodium Phosphate		E	E	E
Triphenyl Phosphate		E	E	G
Turpentine		E	E	E
Urea		E	E	G
Uric Acid		E	E	E
Vinegar		E	E	E
Water		E	E	E

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<u>Concentration</u>		68° (20°C)	104 F° (40F)	140 F° (60°C)
Water Sea		E	E	E
Water Soda		E	E	E
Wine		E	O	O
Xylene		E	E	G
Zinc Chloride	Sat. Sol.	E	E	G

The references in this document of available valve component materials and line media are a guide only. It is to be used as a basis for selecting suitable valve component materials to the applicable line media. In no way does this guide guarantee full valve component and line media capability. Only testing of components with line media assures compatibility.

The customer or engineering firms representing the customer bares the full responsibility of complete compatibility of valve components with line media. In no way will Flow Line Valve and Controls, L.L.C. assume the responsibility for chemical resistance on various valve components that may affect the life expectancy of the valve.

The customer and or engineering firm representing the customer should always take into consideration factors of temperature, combinations of media components and media concentrations. The customer performing their own test are the only positive way of assuring compatibility.