

RILSAN NYLONS 11 AND 12 — CHEMICAL RESISTANCE

INTRODUCTION:

In general, Rilsan nylons 11 and 12 show good resistance to bases, salt solutions, salt water, marine atmospheres, oils, greases and petroleum products. Rilsan is not affected by electrolytic corrosion as found in and around salt water and industrial atmospheres.

The resistance to mineral salts, organic acids and strong oxidizing agents varies with the chemical group involved, concentration and temperature. Use of Rilsan nylons 11 and 12 for these applications should be service tested to determine suitability. The same applies to mixtures of chemicals which alone do not attack Rilsan, but when mixed together can produce synergistic reactions.

Phenols and formic acid are powerful solvents and are used for certain application techniques. Some fluoroalcohols also have solvating characteristics.

- Rilsan has good resistance to high concentrations of zinc chloride and calcium chloride.
- Rilsan resists the growth of fungi and molds.
- Rodents do not seek out or attack Rilsan provided they are not confined by it.

F.D.A. approved formulations are available. They do not impart any taste to food stuffs which are stored or come in contact with them.

BESNO (Nylon 11) and AESNO (Nylon 12)

CHEMICAL	CONCENTRATION	68°F 104°F 140°F (20°C)(40°C)(60°C)		
Acetaldehyde		A	B	X
Acetic Acid	5%	A	A	A
Acetic Acid	10%	A	A	B
Acetic Acid	50%	B		X
Acetic Anhydride		B	X	X
Acetone	Pure	A	A+	B
Acetylene		A	A	A
Aluminum Sulfate	Sat. Sol.	A	A	A
Ammonia	Liquid or Gas	A	A	A
Amonium Hydroxide	Concentrated	A	A	A
Ammonium Nitrate		A	A	A
Ammonium Sulfate	Sat. Sol.	A	A	B
Amyl Acetate		A	A	A
Aniline	Pure	B+	X	X
Barium Chloride		A	A	A
Beer		A		
Benzaldehyde		A	B	X
Benzene		A	A+	B
Benzyl Alcohol		B	X	X

Bromine		X	X	
Butane		A	A	A
Butyl Alcohol		A+	B	X
Calcium Arsenate	Concentrated	A	A	A
Calcium Chloride	Sat. Sol.	A	A	A
Calcium Nitrate		A		
Camphor		A		
Carbon Disulphide		A+	B+	X
Carbon Tetrachloride		B	X	
Chlorine		X	X	X
Chloroform		B	X	X
Chromic Acid	10%	X	X	X
Cider		A		
Citric Acid		A	A	B
Copper Sulfate		A	A	A
Cresol		X	X	X
Cyclohexane		A	A	B
Cyclohexanol		A	B	X
Cyclohexanone		A	B	X
D.D.T. Preparations		A		
Diammonium Phosphate		A	A	B
Dichloroethylene		B	X	
Diethanolamine	20%	A	A+	A+
Diethyl Ether		A		
Diethylphosphate		A	A	A
Diethylphthalate		A	A	A
Ethanol	Pure	A+	B	X
Ethyl Acetate		A	A	A
Ethylene Chlorhydrin		X	X	
Ethylene Glycol		A+	A+	B
Ethylene Oxide		A	A	B
Fatty Acid Esters		A	A	A
Fluorine		X	X	X
Formaldehyde	Technical	A	B	X
Formic Acid		X	X	X
Freon 12		A	A	
Freon 22		A	A	
Freon 502		A	A	
Fruit Juices		A	A	
Furfuryl Alcohol		A	A+	B
Gas (Coal)		A	A	
Gasoline (High Octane)		A	A	A+
Glucose		A	A	A
Glycerine	Pure	A	A	B
Glycol		A	A	B
Greases		A	A	A
Heptane		A	A	A+
Hydrogen		A	A	A
Hydrogen Peroxide	20%	A		B

Hydrochloric Acid	10%	A	B	X
Hydrochloric Acid	20%	B	X	X
Hydroxy Quinoline		A		
Isocyanites		B		
Isopropyl Alcohol		A		
Kerosene		A	A	A+
Lactic Acid		A	A	A
Linseed Cake		A	A	A
Magnesium Chloride	50%	A	A	A
Mercury		A	A	A
Methane		A	A	A
Methanol	Pure	A+	B	X
Methyl-Cellosolve		A	A	A
Methyl Acetate		A	A	A
Methyl Bromide		A	X	
Methyl Chloride		A	X	
Methyl Sulfate		A	B	
Methyl Ethyl Ketone		A	A	B
Methyl Isobutyl Ketone		A	A	B
Milk		A	A	A
Monochlorobenzene		B	X	X
Mustard		A		
Naphta		A	A	A+
Naphtalene		A	A	A
Nitric Acid	All Concentrations	X	X	X
Oils Crude		A	A	A+
Oils Refined		A	A	A
Oleic Acid		A	A	A
Oxalic Acid		A	A	B
Oxygen		A	A	B
Perchloroethylene		B	X	
Phenol		X	X	X
Phosphoric Acid	40%	A	B	X
Picric Acid		B	X	X
Potassium Carbonate		A	A	B
Potassium Hydroxide	50%	A	B	X
Potassium Nitrate		A+	B+	X
Potassium Permanganate	5%	X	X	
Potassium Sulfate		A	A	A
Propane		A	A	A
Pydraul F9		A	A	A
Pyridine	Pure	B	X	X
Soap Solution		A		
Sodium Carbonate	Concentrate	A	A	B
Sodium Chloride	Saturated	A	A	A
Sodium Hydroxide	50%	A	B	X
Sodium Hypochlorite	Concentrated	B	X	X
Sodium Hypochlorite	Dilute Commercial Grade	A	B	X

Sodium Sulfide		A	B	B
Stearin		A	A	A
Stearic Acid		A	A	A
Styrene Monomer		A	A+	
Sulfuric Anhydride		B	X	X
Tartaric Acid	Saturated	A	A	A
Tetraethyl Lead		A		
Tetrahydrofurane		A	A	B
Tolulene		A	A+	B
Trichloroethane		B	X	
Trichloroethylene		B	X	
Tricresyl Phosphate		A	A	A
Tributyl Phospahte		A	A	A
Trisodium Phosphate		A	A	A
Triphenyl Phosphate		A	A	B
Turpentine		A	A	A+
Urea		A	A	B
Uric Acid		A	A	A
Vinegar		A	A	A
Water		A	A	A
Water Sea		A	A	A
Water Soda		A	A	A
Wine		A		
Xylene		A	A+	B
Zinc Chloride		A	A	B

+ Swelling Action

A Good -- Rilsan is unaffected

B Limited -- The extent of attack depends on conditions ans can range from swelling to dissolving.

X Unsatisfactory -- Rilsan is attacked.

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