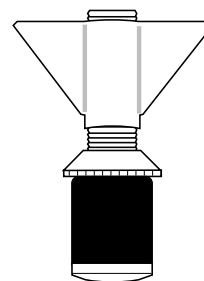


HFT Pipestoppers[®] Nylon Plugs



HFT PIPESTOPPERS[®]

Chemical Resistance and Technical Data

Chart Codes

R = Resistant NR = Not Recommended
LR = Limited Resistance ND = No Data

Chemical	Resistance		
	20°C (68°F)	60°C (140°F)	100°C (212°F)
Acetaldehyde	R	R	ND
Acetic Acid (10%)	R	NR	NR
Acetic Acid (glac.anh.)	NR	NR	NR
Acetic anhydride	ND	ND	ND
Aceto-acetic ester	ND	ND	ND
Acetone	R	R	NR
Other ketones	R	ND	ND
Acetonitrile	ND	ND	ND
Acetylene	ND	ND	ND
Acetyl salicylic acid	ND	ND	ND
Acid Fumes	NR	NR	NR
Alcohols	R	R	R
Aliphatic esters	R	ND	NR
Alkyl chlorides	R	ND	ND
Alum	R	R	R
Aluminium chloride	R	ND	ND
Aluminium Sulphate	R	R	R
Ammonia anhydrous	R	ND	ND
Ammonia aqueous	R	ND	ND
Ammonium chloride	R	ND	ND
Amyl acetate	R	ND	ND
Aniline	R	NR	NR
Antimony trichloride	ND	ND	NR
Aqua regia	NR	NR	NR
Aromatic solvents	R	R	R
Ascorbic acid	ND	ND	ND
Beer	R	R	R
Benzaldehyde	ND	NR	NR
Benzene	NR	NR	NR
Benzoic acid	R	NR	NR
Benzoyl peroxide	ND	ND	ND

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Chemical	Resistance		
	20° C (68° F)	60° C (140° F)	100° C (212° F)
Boric acid	R	R	R
Brines, saturated	R	R	R
Bromide (K) solution	R	ND	ND
Bromine	NR	NR	NR
Bromine liquid	NR	NR	NR
Bromine water, saturated aqueous	NR	NR	NR
Butyl acetate	R	ND	ND
Calcium chloride	ND	ND	NR
Carbon disulphide	R	ND	ND
Carbonic acid	R	R	ND
Carbon tetrachloride	R	ND	ND
Caustic soda & potash	R	R	R
Cellulose paint	ND	ND	ND
Chlorates of Na, K, Ba	R	R	ND
Chlorine, dry	NR	NR	NR
Chlorine, wet	NR	NR	NR
Chlorides of Na, K, Ba	R	R	R
Chloroacetic acid	NR	NR	NR
Chlorobenzene	ND	ND	NR
Chloroform	NR	NR	NR
Chlorosulphonic acid	NR	NR	NR
Chromic acid (80%)	NR	NR	NR
Citric acid	ND	ND	NR
Copper salts	NR	NR	NR
Cresylic acids (50%)	NR	NR	NR
Cyclohexane	R	ND	ND
Detergents, synthetic	R	R	R
Emulsifiers, concentrated	R	R	R
Esters	R	ND	ND
Ether	R	ND	ND
Fatty acids (>C6)	R	ND	ND
Ferric chloride	R	NR	NR
Ferrous sulphate	R	R	R
Flourinated refrigerants	R	ND	ND
Flourine, dry	NR	NR	NR
Flourine, wet	NR	NR	NR
Flourosilic acid	NR	NR	NR
Formaldehyde (40%)	R	R	NR
Formic acid	NR	NR	NR
Fruit juices	R	R	R
Gelatine	R	R	R
Glycerine	R	R	ND
Glycols	R	R	ND

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Chemical	Resistance		
	20° C (68° F)	60° C (140° F)	100° C (212° F)
Glycol, ethylene	R	R	R
Glycolic acid	NR	NR	NR
Hexamethylene diamine	ND	ND	ND
Hexamine	ND	ND	ND
Hydrazine	ND	ND	ND
Hydrobromic acid (50%)	NR	NR	NR
Hydrobromic acid (10%)	NR	NR	NR
Hydrobromic acid (conc.)	NR	NR	NR
Hydrofluoric acid (40%)	NR	NR	NR
Hydrofluoric acid (75%)	NR	NR	NR
Hydrogen peroxide (30%)	NR	NR	NR
Hydrogen peroxide (30 - 90%)	NR	NR	NR
Hydrogen sulphide	R	ND	ND
Hypochlorites	NR	NR	NR
Hypochlorites (Na 12 - 14%)	NR	NR	NR
Iso-butyl-acetate	R	R	ND
Lactic acid (90%)	NR	NR	NR
Lead acetate	R	R	ND
Lead perchlorate	ND	ND	ND
Lime (CaO)	R	R	ND
Maleic acid	R	ND	ND
Manganate potassium (K)	NR	NR	NR
Meat juices	R	R	R
Mercuric chloride	R	NR	NR
Mercury	R	R	R
Methanol	R	R	R
Metethylene chloride	ND	ND	NR
Milk products	R	R	R
Moist air	R	R	R
Molasses	R	R	R
Moneoethanolamine	ND	ND	ND
Naptha	R	ND	ND
Napthalene	R	ND	ND
Nickel salts	ND	ND	ND
Nitrates of Na, K, & NH3	R	R	ND
Nitric acid (<25%)	NR	NR	NR
Nitric acid (50%)	NR	NR	NR
Nitric acid (90%)	NR	NR	NR
Nitric acid (fuming)	NR	NR	NR
Nitrite (Na)	NR	NR	NR
Nitrobenzene	LR	ND	ND
Oils, diesel	R	R	R

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Chemical	Resistance		
	20° C (68° F)	60° C (140° F)	100° C (212° F)
Oils, essential	R	R	R
Oils, lubricating + aromatic additives	R	R	R
Oils, mineral	R	R	R
Oils, vegetable + animal	R	R	R
Oxalic acid	R	ND	ND
Ozone	R	ND	ND
Paraffin wax	R	R	R
Perchloric acid	NR	NR	NR
Petroleum spirits	R	R	R
Phenol	NR	NR	NR
Phosphoric acid (20%)	NR	NR	NR
Phosphoric acid (50%)	NR	NR	NR
Phosphoric acid (95%)	NR	NR	NR
Phosphorous chlorides	ND	ND	ND
Phosphorous pentoxide	R	R	ND
Phthalic acid	R	NR	NR
Picric acid	R	NR	NR
Pyridine	R	ND	ND
Salicyl aldehyde	ND	ND	ND
Sea water	R	R	R
Silicic acid	ND	ND	ND
Silicone fluids	R	ND	ND
Silver nitrate	R	ND	ND
Sodium carbonate	R	ND	ND
Sodium peroxide	NR	NR	NR
Sodium silicate	R	R	R
Sodium sulphide	R	ND	ND
Stannic chloride	R	ND	ND
Starch	R	R	R
Sugar, syrups + jams	NR	NR	NR
Sulphamic acid	NR	NR	NR
Sulphates (Na, K, Mg, Ca)	R	R	R
Sulphites	ND	ND	ND
Sulphonic acids	NR	NR	NR
Sulphur	R	ND	ND
Sulphur dioxide, dry	R	ND	ND
Sulphur dioxide, wet	R	NR	NR
Sulphur dioxide (96%)	NR	NR	NR
Sulphur trioxide	NR	NR	NR
Sulphuric acid (<50%)	NR	NR	NR
Sulphuric acid (70%)	NR	NR	NR
Sulphuric acid (95%)	NR	NR	NR

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Chemical	Resistance		
	20° C (68° F)	60° C (140° F)	100° C (212° F)
Sulphuric acid, fuming	NR	NR	NR
Sulphur chlorides	ND	ND	ND
Tallow	R	ND	ND
Tannic acid (10%)	R	ND	ND
Tartaric acid	R	R	ND
Trichlorethylene	R	R	R
Urea (30%)	R	R	R
Vinegar	R	ND	ND
Water, distilled	R	R	R
Water, soft	R	R	NR
Water, hard	R	R	R
Wetting agents (<5%)	R	R	R
Yeast	R	ND	ND
Zinc chloride	NR	NR	NR

General information	In normal usage, nylons have excellent resistance to chemicals and hydrocarbons
Specific gravity	1.14
Tensile strength Psi	8,700-13,000
Elongation %	50 - 200
Maximum intermittent °C/°F	170/338
Maximum continuous °C/°F	80/176
Service temperature minimum °C/°F	40/104
Effect of weak acids	Not resistant
Effect of strong acids	Attacked
Effect of weak alkalis	Slightly resistant
Effect of strong alkalis	Attacked
Effect of organic solvents	Resists most
Effect of oils + gases	Resistance
Effect of sunlight	Discolours slightly

This information is based on our present state of knowledge. It should not therefore be construed as guaranteeing specific properties of the product described or their suitability for a particular application.