

# Nylon chemical resistance and technical data



GENERAL	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	170
Maximum Continuous °C	80
Service Temperature Minimum °C	40
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 and Greases	Resistance
Effect of Sunlight	Discolours slightly
CHEMICALS.	
Acetic Acid (Conc)	Partially Dissolves
Acetic Acid (Dilute)	Etched
Acetone	Unchanged
Amyl Acetate	Unchanged
Benzene	Unchanged
Benzaldehyde	Unchanged
Bromine	Strong Attack
Butyl Acetate	Unchanged
Carbon Disulfide	Unchanged
Caustic Soda	See Sodium Hydroxide below.
Carbon Tetrachloride	Unchanged
Chlorine	Strong Attack
Chloroform	Unchanged
Cresol	Dissolves
Cyclohexanone	Unchanged
Decalin	Unchanged
Dichlorethylene	Temporary loss of stiffness
Dichlormethane	Temporary loss of stiffness
Dimethylformamide	Strong Attack
Esters	Excellent resistance
Ethers	Excellent resistance
Ether (Diethyl)	Unchanged
Ethyl Acetate	Unchanged
Formaldehyde	Possible attack
Formic Acid (Conc)	Dissolves
Formic Acid (Dilute)	Partially dissolves
Fluoronated Alcohols	Severe attack
gamma-Butyrolactone	Strong Attack

Gasoline	Unchanged
Grease	No effect
Heptane	No effect
Hexane	No effect
Honey	No effect
Hydrobromic Acid 100%	Not recommended
Hydrobromic Acid 20%	Severe effect, not recommended
Hydrobromic Acid 37%	Not recommended
Hydrocarbons	Resistant.
Hydrochloric Acid (Dilute)	Partially Dissolves
Hydrocymic Acid	No effect
Hydrofluoric Acid 75%	Severe effect Not recommended
Hydrofluosilicic Acid 2%	Severe effect Not recommended
Hydrogen Peroxide 10%	Severe effect Not recommended
Hydrogen Peroxide 30%	Severe effect Not recommended
Hydrogen Sulfide dry	Severe effect Not recommended
Hydrogen sulfide,	Severe effect
Aqueous Solution	Not recommended
Hydrolic oils	No effect
Hydrolic oils (Synthetic)	No effect
Ink	No effect
Iodine	Severe effect
Iodoform	no effect
Jet fuel	no effect
Kerosene	No effect
Ketores	No effect
Lactic Acid	Moderate effect
Laquer Thinners	No effect
Laquers	No effect
Lard	No effect
Latex	No effect
Lead Acetate	No effect
Lubricants	No effect
Maelic acid	No effect
Magnesium Chloride	No effect
Magnesium Hydroxide	No effect
Magnesium Sulfate	No effect
Magnesium Nitrate	No effect
Mayonnaise	No effect
m-Chloraphenol	Dissolves
Mercuric Chloride	No effect
Mercury	No effect
Metallic Salts	Strong attack
Methyl Acetate	Unchanged
Methyl - Alcohol 10% (Methanol)	No effect
Methyl Chloride	No effect
Methylethyl Ketone	No effect
Methyl Isobutyl Ketone	No effect
Milk	No effect
Mineral Acids	Strong attack

Mineral Oil	Unchanged
Molases	No effect
Monochlorbenzene	Unchanged
Mustard	No effect
Naptha	No effect
Nickel Chloride	No effect
Nickel Sulfate	No effect
Nitric Acid, 10%, 20%,50% solutions	Severe effect, not recommended
Nitric Acid Concentrated	Severe effect Not recommended, Cletus said 2002, plugs dissolved
Nitro Benzine	Moderate effect
o-Chlorophenal	Dissplves
Oils - Aniline	Moderae effect
Oils - Citric,clove,coconut,cod liver	No effect
Oils - Corn	No effect
p-Chlorophenol	Dissolves
Perchlorethylene	Unchanged
Petroleum	Unchanged
Phenol	Dissolves
Phosphoric Acid (Conc)	Dissolves
Potassium Hydroxide, 5%, 10%	Minimal effect, some crazing
Pyridine	Unchanged
Resorcinol	Dissolves
Sodium Hydroxide (1%)	Unchanged
Sodium Hydroxide (10%)	Minimal effect, some crazing after 30 days
Sodium Hydroxide (5%)	Minimal effect
Solvents	severe attack
Sulfuric Acid (Conc)	Dissolves
Sulfiric Acid (Dilute)	Partially Dissolves
Tetralin	Unchanged
Tetrahydrofuran	Unchanged
Toluene	Unchanged
Trichlorethylene	Temporary loss of stiffness
Turpentine	Unchanged
Xylene	Unchanged
Xylenols	Dissolves