

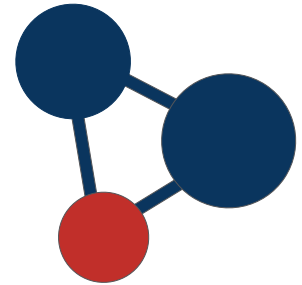
# CHEMICAL RESISTANCE



Within normal use temperatures, Fluoroplastics are attacked by few chemicals. Here below exceptions and chemical resistance table.

## DO NOT USE FLUOROPOLYMERS WITH:

Alkali metals (e.g. elementalsodium, potassium, lithium). Potent oxidizers, Fluorine (F<sub>2</sub>) and related compounds like Chlorine Trifluoride (ClF<sub>3</sub>). 80% Sodium Hydroxide (NaOH) or Potassium Hydroxide (KOH), metal hydrides such as Di-borane (B<sub>2</sub>H<sub>6</sub>), Aluminium Chloride, Ammonia (NH<sub>3</sub>), certain Amines (R-NH<sub>2</sub>) and imines (R=NH) and 70% Nitric Acid at temperatures near the suggested service limit.



CHEMICAL	FLUOROPOLYMERS	AISI304L	AISI316
Acetaldehyde	E	E	E
Acetamide	E	E	E
Acetic acid 10%	E	G	E
Acetic acid 30%	E	G	E
Acetic acid 50%	E	G	E
Acetic acid glacial	E	G	E
Acetic anhydride	E	G	G
Acetone	E	E	E
Acetone cyanohydrin	E	E	E
Acetonitrile	E	E	E
Acetophenone	E	G	G
Acetyl acetone	E	E	E
Acetyl chloride	E	G	G
Acetylene	E	E	E
Acetylene dichloride	E	G	G
Acetylene tetra chloride	E	G	G
Acrylonitrile	E	E	E
Adipic acid	E	E	E
Aliphatic alcohol	E	E	E
Aromatic alcohol	E	E	E
Allyl alcohol	E	E	E
Allyl bromide	E	G	G
Allyl chloride	E	G	G
Aluminium acetate	E	E	E
Aluminium bromide	E	G	G
Aluminium chloride	E	G	G
Aluminium fluoride	E	G	G
Aluminium hydroxide	E	E	E
Aluminium nitrate	E	E	E
Aluminium salts	E	G	G

CHEMICAL	FLUOROPOLYMERS	AISI304L	AISI316
Aluminium sulphate	E	U	G
Ammonium alum	E	G	G
Ammonium carbonate	G	E	E
Ammonium chloride	E	G	G
Ammonium hydroxide	E	E	E
Ammonium metaphosphate	E	E	E
Ammonium nitrate	E	E	E
Ammonium nitrite	G	E	E
Ammonium persulphate	G	E	E
Ammonium phosphate	E	G	E
Ammonium sulphate	E	E	E
Ammonium thiocyanate	E	E	E
Amyl acetate	E	E	E
Amyl alcohol	E	E	E
Amyl chloride	E	E	E
Amyl chloronaphthalene	E	E	E
Amyl naphthalene	E	E	E
Anhydrous ammonia	G	E	E
Aniline	E	E	E
Aniline dyes	E	E	E
Aniline hydrochloride	E	U	U
Animal fats	E	E	E
Aqua regia	A	U	U
Aqueous ammonia	G	E	E
Arsenic acid	E	N	E
Askarel	G	E	E
Asphalt	E	E	E
Aviation gasoline	E	E	E
Barium carbonate	E	E	E
Barium chloride	E	E	E

Values and coefficients contained in this sheet are for information only and shall in no event be held to constitute or imply any warranty, undertaking, express or implied commitment. No liability whatsoever can be accepted by ITG SRL with respect to difference to the values reported in the tables or misuse by the Customer of the product.

# CHEMICAL RESISTANCE



CHEMICAL	FLUOROPOLYMERS	AISI304L	AISI316
Barium hydroxide	E	E	E
Barium sulphate	E	E	E
Barium sulphide	E	E	E
Beer	E	E	E
Beet sugar liquors	E	E	E
Benzene	E	E	E
Benzene sulphonic acid	G	N	G
Benzaldehyde	E	N	E
Benzine	E	E	E
Benzyl alcohol	E	E	E
Benzyl benzoate	E	E	E
Benzyl chloride	E	N	N
Bismuth carbonate	E	E	E
Black sulphate liquor	E	E	E
Blast furnace gas	E	E	E
Borax	E	E	E
Bordeaux mixture	E	E	E
Boric acid	E	G	E
Brine	E	E	E
Bromine	E	G	G
Bromobenzene	E	E	E
Bunker oil	E	E	E
Butadiene	E	E	E
Butane	E*	E	E
Butanol	E	E	E
Butter oil	E	E	E
Butyl acetate	E	E	E
Butyl alcohol	E	E	E
Butyl amine	G	E	E
Butyl carbitol	E	E	E
Butyl cellosolve	E	E	E
Butyl stearate	E	E	E
Butyl mercaptan	E	E	E
Butyraldehyde	E	E	E
Butyric acid	E	E	E
Cadmium acetate	E	E	E
Calcium acetate	E	E	E
Calcium bisulphate	E	G	E
Calcium bisulphite	E	E	E
Calcium carbonate	E	E	E
Calcium chlorate	E	G	E
Calcium chloride	E	G	E

CHEMICAL	FLUOROPOLYMERS	AISI304L	AISI316
Calcium hydroxide	E	U	E
Calcium hypochlorite	E	U	G
Calcium nitrate	E	E	E
Calcium silicate	E	E	E
Calcium sulphate	E	E	E
Calcium sulphide	E	E	E
Cane sugar liquors	E	E	E
Caprylic acid	E	E	E
Carbitol	E	G	G
Carbolic acid	E	E	E
Carbon dioxide	E*	E	E
Carbon disulphide	G*	E	E
Carbonic acid	E	E	E
Carbon monoxide	E*	E	E
Carbon tetrachloride	E	G	G
Castor oil	E	E	E
Caustic soda	E	E	E
Cellosolve acetate	E	E	E
Cellulube	E	E	E
Chloracetone	E	U	U
Chlorine gas (dry)	E*	U	U
Chlorine gas (wet)	E	U	U
Chlorine trifluoride	U	N	N
Chloroacetic acid	E	U	U
Chlorobenzene	E	E	E
Chlorobromomethane	E	G	G
Chlorobutadiene	E	G	G
Chlorobutane	E	G	G
Chloroform	E	G	G
Chlorotoluene	E	G	G
Chromic acid	E	U	G
Chrome plating solution	E	U	U
Citric acid	E	U	E
Cod liver oil	E	E	E
Coke oven gas	E	E	E
Copper chloride	E	U	E
Copper cyanide	E	E	E
Copper sulphate	E	E	E
Corn oil	E	E	E
Corn syrup	E	E	E
Cottonseed oil	E	E	E
Creosote	E	E	E

Values and coefficients contained in this sheet are for information only and shall in no event be held to constitute or imply any warranty, undertaking, express or implied commitment. No liability whatsoever can be accepted by ITG SRL with respect to difference to the values reported in the tables or misuse by the Customer of the product.

# CHEMICAL RESISTANCE



CHEMICAL	FLUOROPOLYMERS	AISI304L	AISI316
Cresol	E	E	E
Crude wax	E	E	E
Cutting oil	E	E	E
Cyclohexane	E	E	E
Cyclohexanone	E	E	E
Cymene	E	N	N
Decalin	E	N	N
Denatured alcohol	E	E	E
Diacetone	E	E	E
Diacetone alcohol	E	E	E
Dibenzyl ether	E	E	E
Dibutyl ether	E	E	E
Dibutyl Phthalate	E	E	E
Dibutyl sebacate	E	N	N
Dichlorobenzene	E	E	E
Diesel oil	E	E	E
Diethylamine	E	E	E
Diethyl ether	E	E	E
Diethylene glycol	E	E	E
Diethyl phthalate	E	E	E
Diethyl sebacate	E	E	E
Diisobutylene	E	E	E
Diisopropyl ketone	E	E	E
Dimethyl aniline	E	N	N
Dimethyl formamide	G	E	E
Dimethyl phthalate	E	N	N
Diocetyl phthalate	E	E	E
Dioxane	E	E	E
Dipentene	E	E	E
Ethanolamine	E	E	E
Ethyl acetate	E	E	E
Ethyl acetoacetate	E	E	E
Ethyl acrylate	G	E	E
Ethyl Alcohol	E	E	E
Ethyl benzene	E	E	E
Ethyl cellulose	E	E	E
Ethyl chloride	E	E	E
Ethyl ether	E	E	E
Ethyl mercaptan	E	N	N
Ethyl pentochlorobenzene	E	E	E
Ethyl silicate	E	E	E
Ethylene chloride	E	E	E

CHEMICAL	FLUOROPOLYMERS	AISI304L	AISI316
Ethylene chlorohydrin	E	N	N
Ethylene diamine	E	N	N
Ethylene glycol	E	E	E
Fatty acids	E	E	E
Ferric chloride	E	U	U
Ferric nitrate	E	E	E
Ferric sulphate	E	E	E
Ferrous chloride	E	E	G
Ferrous nitrate	E	E	E
Ferrous sulphate	E	E	E
Fluorine	U	G	G
Fluoroboric acid	E	E	E
Formaldehyde	E	E	E
Formic acid	E	G	E
Freon 11 to 13	G*	E	E
Freon 112 to 115	G*	E	E
Freon 21 and 31	G*	E	E
Freon 218 and 318	G*	E	E
Fuel oil	E	G	G
Fumaric acid	G	E	E
Furan furfuran	E	E	E
Furfural	E	E	E
Gallic acid	E	E	E
Gasoline	E	E	E
Glauber's salt	G	E	E
Gluconic acid	E	E	E
Glucose	E	E	E
Glue	E	E	E
Glycerin	E	E	E
Glycols	E	E	E
Grease	E	E	E
Green sulphate liquor	E	E	E
Halowax oil	E	N	N
N-Hexaldehyde	E	E	E
Hexane	E	E	E
Hexene	E	E	E
Hexyl alcohol	E	E	E
Hydraulic oil (petroleum)	E	E	E
Hydrobromic acid	E	N	N
Hydrochloric acid 15%	E	U	U
Hydrochloric acid 37%	E	U	U

Values and coefficients contained in this sheet are for information only and shall in no event be held to constitute or imply any warranty, undertaking, express or implied commitment. No liability whatsoever can be accepted by ITG SRL with respect to difference to the values reported in the tables or misuse by the Customer of the product.

# CHEMICAL RESISTANCE



CHEMICAL	FLUOROPOLYMERS	AISI304L	AISI316
Hydrocyanic acid	E	E	E
Hydrofluoric acid (concentrated)	E	U	U
Hydrofluosilicic acid	E	U	U
Hydrogen gas	E*	E	E
Hydrogen peroxide 10%	E	G	E
Hydrogen peroxide 70%	E	G	E
Hydrogen sulphate gas	E	G	E
Hydrogen sulphide	E	G	E
Hydroquinone	G	E	E
Ink oil (linsed oil base)	E	E	E
Iodine	E	N	N
Iron acetate	E	E	E
Isobutane	E	E	E
Isobutanol	E	E	E
Isobutyl acetate	E	E	E
Isobutyl alcohol	E	E	E
Isobutylene	E	E	E
Iso octane	E	E	E
Isocyanate	E	E	E
Isopropyl acetate	E	E	E
Isopropyl alcohol	E	E	E
Isopropyl ether	E	E	E
Jet fuels (JP1 to JP6)	E	E	E
Kerosene	E	E	E
Ketone	E	E	E
Lacquers	E	U	E
Lacquer solvents	E	U	E
Lactic acid	E	G	E
Lard	E	E	E
Lauryl alcohol	E	E	E
Lead acetate	E	E	E
Lead nitrate	G	E	E
Lead sulphate	E	E	E
Ligroin	E	E	E
Lime bleach	G	G	E
Linoleic acid	E	N	N
Linseed oil	E	E	E
Lubricating oils (petroleum)	E	E	E
Magnesium acetate	E	E	E
Magnesium chloride	E	G	E
Magnesium hydroxide	E	E	E

CHEMICAL	FLUOROPOLYMERS	AISI304L	AISI316
Magnesium sulphate	E	E	E
Malic acid	E	G	E
Manganese sulphate	E	E	E
Mercuric chloride	E	G	E
Mercury	E	E	E
Mesityl oxide	E	E	E
Methane	E	E	E
Methyl acetate	E	E	E
Methyl acrylate	G	E	E
Methyl alcohol	E	E	E
Methyl bromide	E	E	E
Methyl butyl ketone	G	E	E
Methyl chloride	E	E	E
Methylene chloride	E	E	E
Methyl ethyl ketone (Mek)	E	E	E
Methyl formate	E	E	E
Methyl Isobutyl ketone	E	E	E
Methyl methacrylate	E	E	E
Methyl salicylate	E	E	E
Milk	E	E	E
Mineral oil	E	E	E
Monochlorobenzene	E	E	E
Monoethanolamine	G	E	E
Naphtha	E	E	E
Naphthalene	E	E	E
Naphthenic acid	E	G	E
Natural gas	E	E	E
Nickel acetate	E	E	E
Nickel chloride	E	G	G
Nickel sulphate	E	G	E
Niter cake	E	G	E
Nitric acid (all concentrations)	E	G	G
Nitric acid (red fuming)	E	G	G
Nitrobenzene	E	E	E
Nitroethane	E	E	E
Nitrogen gas	E	E	E
Nitrogen tetroxide	G	N	G
Nitropropane	E	E	E
N-Octane	G	E	E
Octanol	E	E	E
Octyl acetate	E	E	E
Octyl alcohol	E	E	E

Values and coefficients contained in this sheet are for information only and shall in no event be held to constitute or imply any warranty, undertaking, express or implied commitment. No liability whatsoever can be accepted by ITG SRL with respect to difference to the values reported in the tables or misuse by the Customer of the product.

# CHEMICAL RESISTANCE



CHEMICAL	FLUOROPLASTICS	AISI304L	AISI316
Oil (SAE)	E	E	E
Oleic acid	E	G	E
Olive Oil	E	G	E
Oxalic acid	E	G	E
Oxygen gas	E	E	E
Ozone	E	E	E
Paint	E	E	E
Palm oil	E	G	E
Palmitic acid	E	G	E
PAO Synthetic Lubricant	E	E	E
Paraffin wax	E	E	E
Peanut oil	E	E	E
Peracetic acid 40%	E	G	G
Perchloric acid	E	G	E
Perchloroethylene	E	E	E
Petroleum	E	E	E
Phenol	E	E	E
Phorone	E	E	E
Phosphoric acid	E	E	E
Picric acid	E	E	E
Pinene	E	E	E
Pine Oil	E	E	E
Piperidine	E	E	E
Potassium acetate	E	E	E
Potassium chloride	E	G	E
Potassium cyanide	E	E	E
Potassium dichromate	E	E	E
Potassium hydroxide 30%	E	E	E
Potassium nitrate	E	E	E
Potassium Sulphate	E	E	E
Propane	E	E	E
Propanediol	E	E	E
Propyl acetate	G	E	E
Propyl alcohol	E	E	E
Pyridine 50%	E	E	E
Red oil	E	G	E
Salicylic acid	G	E	E
Salt water	E	E	E
Sewage	E	E	E
Silicone greases	G	E	E
Silicone oils	G	E	E
Silver nitrate	E	E	E

CHEMICAL	FLUOROPLASTICS	AISI304L	AISI316
Skydrol 500 & 7000	E	E	E
Soap solutions	E	E	E
Soda ash	G	E	E
Sodium acetate	E	E	E
Sodium bicarbonate	E	E	E
Sodium bisulphate	E	E	E
Sodium borate	E	E	E
Sodium chloride	E	G	E
Sodium cyanide	E	E	E
Sodium hydroxide 40%	E	E	E
Sodium hypochlorite	E	U	G
Sodium metaphosphate	E	E	E
Sodium nitrate	E	G	G
Sodium perborate	E	E	E
Sodium peroxide	E	E	E
Sodium phosphate	E	E	E
Sodium thiosulphate	E	E	E
Soybean oil	E	E	E
Stannic chloride	E	N	N
Steam	E	E	E
Stearic acid	E	G	E
Stoddard solvent	E	E	E
Styrene	E	N	G
Sucrose solution	E	E	E
Sulphur (100°C)	E	G	E
Sulphur chloride	E	U	G
Sulphur dioxide	E	E	E
Sulphur trioxide	E	G	G
Sulphuric acid 10%	E	U	G
Sulphuric acid 98%	E	U	G
Sulphuric acid (Fuming)	E	N	E
Sulphuric acid 75%	E	U	G
Tannic acid 10%	E	E	E
Tar	E	E	E
Tartaric acid	E	G	G
Terpineol	E	N	N
Titanium Tetrachloride	G	G	G
Toluene	E	E	E
Toluene diisocyanate	G	N	N
Transformer oil	E	E	E
Transmission fluid	E	E	E
Tributoxyethyl phosphate	E	N	N

Values and coefficients contained in this sheet are for information only and shall in no event be held to constitute or imply any warranty, undertaking, express or implied commitment. No liability whatsoever can be accepted by ITG SRL with respect to difference to the values reported in the tables or misuse by the Customer of the product.

# CHEMICAL RESISTANCE

CHEMICAL	FLUOROPOLYMERS	AISI304L	AISI316
Tributyl phosphate	E	N	N
Trichloroethylene	E	N	E
Trycresyl phosphate	E	N	G
Tung oil	E	E	E
Turpentine	E	E	E
Urea solution 50%	E	E	E
Varnish	G	E	E
Vegetable oils	E	E	E
Versilube	E	E	E
Vinegar	E	G	E
Vinyl chloride	E	E	E
Whiskey	E	G	E
Wines	E	G	E
Xylene	E	G	G
Zinc acetate	E	E	E
Zinc chloride	E	G	E
Zinc sulphate	E	G	E



## RATING CODES

E = Excellent  
 G = Good  
 N = Not Tested  
 U = Unsuitable

## GENERAL SPECIFICATIONS

The information contained on this table is for general guidance only. Due to the variety of applications and operating conditions, the users, through their own analysis and testing, are solely responsible for making the final selection of the products and assuring that all performance, safety and warning requirements of the application are met.

Values and coefficients contained in this sheet are for information only and shall in no event be held to constitute or imply any warranty, undertaking, express or implied commitment. No liability whatsoever can be accepted by ITG SRL with respect to difference to the values reported in the tables or misuse by the Customer of the product.