



Chemical Resistance of Virgin PTFE:

The chemical resistance of Virgin PTFE is excellent. It is stable in most aggressive and corrosive media, exceptions being liquid or dissolved alkali metals, fluorine and other extremely potent oxidisers.

PTFE is not chemically resistive to -

Molten or dissolved Alkali metals – Sodium, Potassium, Rubidium, Cesium, Francium,
 Fluorine Gas,
 Fluorine compounds & complexes at elevated temperature.

Chemical Resistance of Filled PTFE:

The chemical resistance of Filled PTFE compositions to number of Chemicals is given below. In general carbon and glass filled compositions give better performance in chemical service.

Chemical	Filler			Chemical	Filler		
	Carbon/Graphite	Glass	Bronze		Carbon/Graphite	Glass	Bronze
Acetaldehyde	A	A	A	Maleic acid	A	A	B
Acetone	A	A	A	Mercury salts	A	A	C
Aluminum Sulphate	A	A	B	Molasses	A	A	B
Ammonium chloride	A	A	C	Naphtha A	A	A	B
Ammonium hydroxide	A	B	C	Naphthalene	A	A	B
Aniline	A	A	C	Nickel salts	A	A	A
Benzene	A	A	A	Nitric acid	C	B	C
Brine	A	A	A	Nitro benzene	A	A	A
Bromine (anhydrous)	C	B	C	Phenol	A	B	A
Carbon Disulphide	A	A	A	Phosphoric acid	A	A	C
Chloroacetic Acid	A	A	B	Picric acid	A	A	A
Chlorobenzene	A	A	A	Pyridine	A	A	C
Chloroform	A	A	A	Salicylic acid	A	A	B
Chromic Acid	B	B	C	Silver nitrate	A	A	C
Citric Acid	A	A	A	Sodium carbonate	A	A	A
Diethyl ether	A	A	A	Sodium hydroxide	A	B	A
Ethylene glycol	A	A	A	Sodium nitrite	A	A	A
Fatty acids	A	A	A	Sodium peroxide	B	C	A
Ferric Chloride	A	A	C	Sodium silicate	A	C	A
Ferric sulphate	A	A	C	Sodium sulphide	A	A	C
Fluorosilicic acid	B	B	C	Starch	A	A	A
Formic acid	A	A	A	Sulphuric acid	B	A	C
Freon (liquid)	A	A	A	Tallow	A	A	A
Hydro boric acid	A	B	C	Tannic acid	A	A	A
Hydrochloric acid	A	B	C	Tartaric acid	A	A	A
Hydrocyanic acid	A	B	C	Trichloroethylene	A	A	B
Hydrogen sulphide	A	C	C	Zinc chloride	A	A	C
Lead acetate	A	A	C				

Note: **A** = Excellent, **B** = Fair, **C** = Unsatisfactory.