

PSU - Resistivity vs Chemicals

The polysulphone is a tough rigid, amorphous thermoplastic material.

It is hydrolytically stable and has demonstrated long-term resistance to steam. Electrical properties are maintained over a wide temperature (-40°C + 160°C) and after immersion in water.

The polysulphone is highly resistant to mineral acids, alkali, salt solutions, detergents, hydrocarbon oils.

The polysulphone has FDA, USP, 3-A and NSF approvals, which allow food contact use and medical equipment use.

Chemical Resistance			
+ = resistant; 0 = partially resistant; - = not resistant; = soluble			
Substance (concentration)	Resistance	Substance (concentration)	Resistance
Acetic Acid (80-10%)	+	Hydrogen Peroxide (0.5%)	+
Acetone (100%)	-	Hydrogen Peroxide (1%)	+
Alcoholic Calcium Chloride (20%)	0	Hydrogen Peroxide (3%)	+
Alkaline Solution 0.1% CL Active	-	Hydrogen Peroxide (10%)	+
Aluminium Chloride (10%)	+	Hydrogen Peroxide (30%)	+
Aluminium Sulphur (10%)	+	Iodine and Potassium Solution	-
Ammonia (10%)	+	Iodine Tincture (-)	-
Ammonium Chloride (10%)	+	Lactic Acid (10%)	+
Benzene (100%)	-	Liquid Freon 12 (100%)	+
Boric Acid (10%)	+	Magnesium Chloride (10%)	+
Butanol (100%)	0	Manganese Sulphur (10%)	+
Butyl Acetate (100%)	-	Mercury (100%)	+
Calcium Hypochlorite (10%)	+	Mercury (5%)	+
Carbon Sulphur (100%)	-	Methanol (98%)	0
Carbon Tetrachloride (100%)	-	Methyl Chloride (100%)	0
Caustic Potash (10%)	+	Mineral Oil (100%)	+
Caustic Potash (50%)	+	Nitric Acid (10%)	+
Caustic Soda (10%)	+	Nitric Acid Conc. (65%)	-
Caustic Soda (50%)	+	Oleic Acid Conc. (40%)	+
Chloride Gas (100%)	+	Ozone (-)	-
Chlorine Water (-)	+	Petroleum (100%)	+
Chlorobenzene (100%)		Phenol (10%)	-
Chloroform (100%)		Phosphoric Acid (10%)	+
Chrome Alum	+	Phosphoric Acid Conc.	+
Citric Acid (10%)	+	Potassium Bichromate (5%)	+
Cold Water (100%)	+	Potassium Nitrate (10%)	+
Cromic Acid (10%)	-	Potassium Permanganate (1%)	+
Cyclohexane (100%)	0	Pyridine (100%)	-
Dibutylphthalate (100%)	+	Sea Water (100%)	+
Diesel (100%)	+	Soap Solution	+
Diethylphthalate (100%)	+	Soda (10%)	+
Ethanol (96%)	+	Sodium bisulphite (10%)	+
Ethyl Acetate (100%)	+	Sodium Chloride (10%)	+
Ethyl Ether (100%)	+	Sodium Sulphur (10%)	+
Ethylene Chloride (100%)		Sulfuric Acid (10%)	+
Formaldehyde (20%)	+	Sulfuric Acid (98%)	-
Formic Acid (85%)	+	Tallow (100%)	+
Fuel (100%)	0	Transformers Oil (100%)	+
Furfural (100%)	+	Urea (10%)	+
Glycerine (90%)	+	Wax (100%)	+
Heptane (100%)	+	Xilene (100%)	-
Hexane (100%)	+	Zinc Chloride (10%)	0
Hydrochloric Acid (2-10%)	+		
Hydrofluoric Acid (40%)	-		

The approximate values with 20°C, specified here, are not transferable to all operation conditions. The chemical stability of plastics is dependently of the temperature, concentration, radiation effect, mechanical/dynamic stress and not least of the careful production of the work piece (shatter crack danger). Therefore warranty and requirements for compensation cannot be recognized. For specific applications it is essential to make for the operating conditions appropriate attempts.