PVDF 1000x500x40 mm black

Article No.	P1010657

1. Technical Data Sheet

Property	Value	Unit	Test standard
Density	1.78	g/cm³	ISO1183
Water absorption to saturation	0.15	%	ISO62
Water Absorption to Saturation	0.35	%	ISO62
Tensile Strength	40	MPa	ISO 527
Modulus of elasticity (tensile)	2200	MPa	ISO527-2
Breakdown Voltage	46	MPa	ISO 527
Break Elongation	17	%	ISO527-2
Flexural Strength	62	MPa	ISO527-2
Notched impact strength (Charpy)	8	kJ/m²	ISO 179
Impact Resistance (Charpy)	150	kJ/m²	ISO179/1eU
Hardness Shore D	80	° Shore D	ISO868
Ball pressure hardness	120	MPa	ISO 2039
Melting point	171	°C	ISO11357
Maximal operating temperature (short-term)	142	°C	UL746B
Maximum Operating Temperature	130	°C	UL746B
Minimum temperature	-26	°C	
Heat deflection temperature (HDT/A)	104	°C	ISO 75
Heat deflection temperature (HDT/B)	145	°C	ISO 75
Vicat softening temperature (VST/B/50)	138	°C	ISO 306
Thermal Conductivity	0.25	W/(m·K)	DIN22007-4
Thermal Expansion Coefficient	1.6	10^{-4}/K	ISO11359
Dielectric Strength	27	kV/mm	IEC 60243-1
Volume Resistivity	10^{13}	Ω·cm	IEC 60093
Dielectric Constant (1 MHz)	7.7	-	IEC 60250
Dielectric loss factor (1 MHz)	0.1	-	IEC 60250

Property	Value	Unit	Test standard
Surface Resistivity	10^{14}	Ω	IEC60093
Comparative Tracking Index (CTI)	600	V	IEC 60112

2. Chemical Resistance

● Resistant ● Partially resistant ● Not resistant

Chemical	Concentration	Resist.
1,4-Dioxane	100	●
2-Hydroxypropionic acid (lactic acid)	90	●
Acetic acid	100	●
Acetone	100	●
Ammonia	–	●
Ammonium chloride	–	●
Amyl alcohol	–	●
Apple juice	–	●
Benzene	–	●
Bleaching solution	–	●
Boric acid	100	●
Brake fluid	–	●
Butyl acetate	–	●
Calcium chloride	–	●
Carbon disulphide	100	●
Carbon tetrachloride	–	●
Chlorine (gas)	100	●
Chlorobenzene	100	●
Chloroform	–	●
Citric acid	10	●
Cresol	–	●
Cyclohexanone	100	●
Cyclohexene	100	●
Diesel	–	●
Diethylene oxide	–	●
Ethyl acetate	100	●

Chemical	Concentration	Resist.
Ethyl alcohol (ethanol)	96	🟢
Ethylene chloride	100	🟢
Food oil	–	🟢
Formaldehyde (aqueous)	40	🟢
Formic acid	10	🟢
Frost protection agent	–	🟢
Fuel oil	–	🟢
Fuel, aromatic free	–	🟢
Glycerine	100	🟢
Glycol	100	🟢
Heptane	100	🟢
Hydrochloric acid	10	🟢
Hydrochloric acid (concentrated)	–	🟢
Hydrofluoric acid	40	🟢
Hydrogen peroxide	10	🟢
Hydrogen sulfide (aqueous)	–	🟢
Isopropyl alcohol	100	🟢
Linseed oil	–	🟢
Mercurochrome	–	🟢
Methyl alcohol (methanol)	100	🟢
Methyl ethyl ketone (MEK)	100	🔴
Methylene chloride	100	🟡
Milk	–	🟢
Mineral oils (aromatic free)	–	🟢
Nitric acid	10	🟢
Nitric acid (50%)	50	🟢
Nitrobenzene	–	🟢
Oxalic acid	–	🟢
Ozone (gas)	≤ 0.5 ppm	🟢
Paraffin oil	100	🟢
Perchloroethylene	–	🟢
Petroleum	100	🟢

Chemical	Concentration	Resist.
Phenol (aqueous)	ca. 9	🟢
Phosphoric acid	50	🟢
Potassium hydroxide solution	50	🟢
Premium fuel	–	🟢
Propyl alcohol	–	🟢
Pyridine	–	🔴
Silicone oil	–	🟢
Sodium carbonate (aqueous)	–	🟢
Sodium chloride (aqueous)	–	🟢
Sodium hydrogen sulfite	–	🟢
Sodium hydroxide solution (60%)	60	🟢
Sodium hydroxide solution (caustic soda)	15	🟢
Sodium nitrate (aqueous)	–	🟢
Sodium thiosulfate	–	🟢
Sulphuric acid	96	🟢
Tetrahydrofuran (THF)	100	🟡
Toluene	100	🟢
Transformer oil	–	🟢
Trichloroethylene	100	🟢
Vinegar (standard)	5 - 10	🟢
Water	–	🟢
Xylene	–	🟢