

PVDF (POLYVINYLIDENE FLUORIDE) MATERIAL DATA SHEET

Product characteristics:

- Excellent welding and processing properties
- High adhesion in a composit system

Typical field of application:

- Chemical engineering and tank building
- Galvano technology
- Corrosion protection

PROPERTIES	Test methods	Units	VALUES
Color	-	-	Natural (white)
Density	DIN EN ISO 1183-4	g/cm ³	1.78
Water absorption	DIN EN ISO 62	%	< 0.3
Thermal Properties			
Melting temperature	ISO 11357-3	°C	172-175
Thermal conductivity	DIN 52612-1	W/(K * m)	0.19
Coefficient of linear thermal expansion	DIN 53752	10 ⁻⁶ K ⁻¹	100-140
Thermal capacity	DIN 52612	kJ/(kg* K)	1.20
Service temperature, long term	Average	°C	0 – 140
Service temperature, short term (MAX.)	Average	°C	150
Heat deflection temperature	DIN EN ISO 306, Vicat B	°C	140
Flammability	-	-	V-0
Mechanical Properties at 23 °C			
Yeld stress	DIN EN ISO 527	MPa	55
Elongation at break	DIN EN ISO 527	%	>60
Tensile modulus of elasticity	DIN EN ISO 527	MPa	2200
Notched impact strength (charpy)	DIN EN ISO 179	kJ/m ²	15
Shore hardness	DIN EN ISO 868	Scale D	77
Electrical Properties at 23 °C			
Dielectric strength	IEC 60243	kV/mm	20
Volume resistivity	IEC 60093	Ohm.cm	>10 ¹⁴
Surface resistivity	IEC 60093	Ohm	<10 ¹⁴
Relative permittivity ε _r : - at 100 Hz	IEC 60250	-	7.4
- at 1 MHz	IEC 60250	-	6.0
Dielectric constant	IEC 60250	-	8
Dielectric dissipation factor (10 ⁶ MHz)	IEC 60250	-	0.17
Comparative tracking index	IEC 60112	-	600

Note: 1 g/cm³ = 1,000 kg/m³; 1 MPa = 1 N/mm²; 1 kV/mm = 1 MV/m.

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