

TECHNICAL DATA SHEET

KYNAR FLEX® 2751-00

FLUORINATED COPOLYMER POWDER

KYNAR FLEX® resins are fluorinated thermoplastic copolymers. Outstanding characteristics: chemical resistance, imperviousness to UV, barrier properties and high purity. KYNAR FLEX® 2751-00 resin is a powder grade where maximum flexibility or impact strength is required.

DESIGNATION

PVDF

MAIN APPLICATIONS

- Cable

DELIVERY FORM

- Pellets

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melt volume flow rate (MVR), 230°C / 5 kg (446°F / 11 lb)	1.9 cm ³ /10min	ISO 1133
Melt flow index (MFR), 230°C / 12.5 kg (445°F / 27.5 lb)	14 g/10min	ASTM D1238
Melt viscosity, 230°C (445°F) at 100 s ⁻¹	20 - 25 kPo	ASTM D3835
Melt flow index (MFR), 235°C / 5 kg (455°F / 11 lb)	4 - 14 g/10min	ASTM D1238

MECHANICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Tensile modulus, 23°C (73°F)	552 MPa	ASTM D638
Stress at strain, 23°C (73°F)	10-20 %	ASTM D638
Stress at break, 23°C (73°F)	17.2 - 34.5 MPa	ASTM D638
Flexural modulus, 23°C (73°F)	483 - 758 MPa	ASTM D790
Charpy notched impact strength, 23°C (73°F)	No Break	ISO 179 1eA
Hardness, Shore D	60 - 70	ASTM D2240
Coefficient of friction dynamic vs steel, 23°C (73°F)	0.33	ASTM D1895
Coefficient of friction static vs steel, 23°C (73°F)	0.33	ASTM D1894
Charpy notched impact strength, 23°C (73°F)	0.534-1.07 kJ/m ²	ASTM D256
Yield strain, 23°C (73°F), 50 mm/min	15 %	ISO 527-1/-2
Yield stress, 23°C (73°F)	20 - 34.5 MPa	ASTM D638
Taber abrasion resistance, Wheel CS 17, load 1 kg, 1000 cycles	16 - 19 mg	ASTM G195-13A
Compression strength, 23°C (73°F)	31 - 41.4 MPa	ASTM D695
Izod impact unnotched strength, 23°C (73°F)	No Break	ASTM D256
Izod impact notched strength, 23°C (73°F)	0.534 - 1.07 J/m	ASTM D256
Nominal strain at break, 23°C (73°F), 50 mm/min	>50 %	ISO 527-1/-2
Abrasion resistance, Wheel CS 17, load 1 kg, 1000 cycles	16 - 19 mg	ASTM G195-13A

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THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Glass transition temperature, 10°C/min	-40 °C	ISO 11357-1/-2
Heat deflection temperature, 1.8 MPa	40 °C	ISO 75-1/-2
Specific heat temperature, 23°C (73°F)	745 - 958	ISO 11357-1/-2
Heat deflection temperature, 0.45 MPa, 138°C/h	167-140 °C	ASTM D648
Oxygen index	%	ISO 4589-1/-2
Limiting oxygen index (LOI)	42 %	ASTM D2863
Coefficient of linear thermal expansion, 23°C (73°F)	126 - 185 10E-6 / °K	ASTM D696
Heat deflection temperature, 1.8 MPa, 138°C/h	40 - 55 °C	ASTM D648
Heat deflection temperature, 0.45 MPa, 138°C/h	60-75 °C	ASTM D648
Thermal conductivity	0.144 - 0.18 W/m-K	ASTM D433
Melting temperature, 10°C/min	140 °C	ISO 11357-1/-3
Thermal degradation temperature, Under air at 10°C/min	375 °C	ISO 11357-1/-2
Thermal degradation temperature, Under nitrogen at 10°C/min	410 °C	ISO 11357-1/-2

ELECTRICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Volumic (transversal) resistivity	2E14 ohm*m	
Dielectric constant, 1kHz	3.5 - 10.6	ASTM D150
Dissipation factor	0.02 - 0.21	ASTM D150
Surface resistivity, 23°C (73,4°F)	5.1E+11 - 5.3E+11 ohm/sq	ASTM D257
Dielectric strength, 23°C (73,4°F)	1.3 - 1.5 kV/mm	ASTM D149

OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Water absorption, Saturated in water at 23°C (73°F)	0.04 %	ASTM D570
Specific gravity, 23°C (73°F)	1.7 - 1.8 g/cm ³	

SPECIAL CHARACTERISTICS

- Flame & smoke

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