KYNAR FLEX®

TECHNICAL DATA SHEET

KYNAR FLEX® 2751-00 POWDER

FLUORINATED COPOLYMER POWDER

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

TYPE

PVDF

MAIN APPLICATIONS

- cable

DELIVERY FORM

- Pellets

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	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 (446°F / 27.5 lb)	14	g/10min	ASTM D1238
Melt viscosity, 230°C (446°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	TYPICAL VALUE	UNIT	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/m2	ASTM D256
Yield strain, 23°C (73°F)	15	%	ISO 527-1/-2
Yield stress, 23°C (73°F)	20 - 34.5	MPa	ASTM D638
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	%	ISO 527-1/-2

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PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Abrasion resistance, wheel CS 17, load 1 kg, 1000 cycles	16 - 19	mg	ASTM G195-13A

THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	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	TYPICAL VALUE	UNIT	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	TYPICAL VALUE	UNIT	TEST STANDARD
Density, 23°C (73°F)	1.7 - 1.8	g/cm³	ISO 1183-1

SPECIAL CHARACTERISTICS

- Flame & smoke

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