KYNAR FLEX®

TECHNICAL DATA SHEET

KYNAR FLEX® 2751-10 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

- Powder

RHEOLOGICAL PROPERTIES

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

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Tensile modulus	450	MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F)	552-896	MPa	ASTM D638
Yield stress	21	MPa	ISO 527-1/-2
Yield strain	15	%	ISO 527-1/-2
Nominal strain at break	> 50	%	ISO 527-1/-2
Flexural modulus, 23°C (73°F)	483 - 758	MPa	ASTM D790
Compression strength, 23°C (73°F)	31,0 - 41,4	MPa	ASTM D695
Hardness, shore D, 23°C (73°F)	60-70		ASTM D790
Charpy notched impact strength (XY axes), 23°C (73°F)	NO BREAK	kJ/m2	ISO 179 1eA
Charpy unotched impact strength (XY axes)	NO BREAK	kJ/m2	ASTM D256
Coefficient of friction static vs steel, 23°C (73°F)	0.33		ASTM D1894
Coefficient of friction dynamic vs steel, 23°C (73°F)	0.33		ASTM D1894
Abrasion resistance, wheel CS 17, load 1 kg, 1000 cycles	16 - 19	mg	ASTM G195-13A

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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, 138°C/h	40 - 55	°C	ASTM D648
Heat deflection temperature, 0.45 MPa, 138°C/h	60 - 75	°C	ASTM D648
Coefficient of linear thermal expansion, 23°C (73°F)	126- 185	10E-6 / °K	ASTM D696
Oxygen index	43	%	ISO 4589-1/-2
Thermal degradation temperature, Under air at 10°C/min	375	°C	
Thermal degradation temperature, Under nitrogen at 10°C/min	410	°C	

ELECTRICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Dielectric constant, 1kHz	3.5 - 10.6		ASTM D150
Dissipation factor, 100Hz	0.02 - 0.21		ASTM D150
Volumic (transversal) resistivity	2 E12	ohm*m	IEC 62631-3-1
Surface resistivity, 23°C (73,4°F)	5.1 E11 - 5.3 E11	ohm/sq	
Dielectric strength, 23°C (73,4°F)	1.3 - 1.5	kV/mm	ASTM D149

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Water absorption, after 24h at 23°C (73°F) / 50%RH	0.03 - 0.05	%	ISO 62
Density, 23°C (73°F)	1.7 - 1.8	g/cm³	ISO 1183-1

SPECIAL CHARACTERISTICS

- Flame & smoke

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