

KYNAR FLEX®

TECHNICAL DATA SHEET

KYNAR FLEX® 3030-50

FLUORINATED COPOLYMER PELLET

KYNAR FLEX® 3030-50 resin is a copolymer of vinylidene fluoride and hexafluoropropylene specifically designed for cable, tubing and heat shrink tubing applications.

Characteristics:

- Excellent crosslink efficiency
- Very high flexibility
- High melting point
- Excellent low temperature impact resistance

A powder form is also available: KYNAR FLEX® 3031-50.

TYPE

PVDF

MAIN APPLICATIONS

- Plenum Cable

DELIVERY FORM

- Pellets

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melt viscosity, 230°C (445°F) at 100 s-1	21 - 30	kPo	ASTM D3835
Melt flow index (MFR), 235°C / 5 kg (455°F / 11 lb)	2.5 - 7.5	g/10min	ASTM D1238

MECHANICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F)	276	MPa	ASTM D638
Yield stress, 23°C (73°F)	11.7 - 15.9	MPa	ASTM D638
Yield strain, 23°C (73°F)	25 - 40	%	ASTM D638
Stress at break, 23°C (73°F)	18.6 - 24.1	MPa	ASTM D638
Flexural modulus, 23°C (73°F)	248 - 303	MPa	ASTM D790
Izod impact notched strength, 23°C (73°F)	No Break		ASTM D256
Hardness, Shore D	50 - 60		ASTM D2240
Abrasion resistance, Wheel CS 17, load 1 kg, 1000 cycles	28 - 33	mg	ASTM G195-13A

THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Limiting oxygen index (LOI)	43	%	ASTM D2863
Coefficient of linear thermal expansion, 23°C (73°F)	153 - 194	10E-6 / °K	ASTM D696
Glass transition temperature	-40	°C	ASTM D7028
Melting temperature, 10°C/min	164	°C	ASTM D3418

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ELECTRICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Surface resistivity, 23°C (73,4°F)	7.6E+11 - 7.9E+11	ohm/sq	ASTM D257
Dielectric strength, 23°C (73,4°F)	1 - 1.2	kV/mm	ASTM D149
Volumic (transversal) resistivity, DC, 20°C (68°F)/50%RH	2.0E+12	ohm*m	ASTM D257

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Specific gravity, 23°C (73°F)	1.78 - 1.82	g/cm³	
Water absorption, Saturated in water at 23°C (73°F)	0.05	%	ASTM D570

PACKAGING

Available packaging:

- 25 kg / 55 lb rigid container

SPECIAL CHARACTERISTICS

- Flame & smoke