

TECHNICAL DATA SHEET

KYNAR SUPERFLEX® 2500-20

FLUORINATED COPOLYMER PELLETT

KYNAR SUPERFLEX® resin is a thermoplastic fluorinated polymer.

The properties are the same as standard grades: chemical resistance, resistance to UV, low permeation, high purity, excellent mechanical behavior.

More over, this grade is very flexible and is suitable in electrical isolation cable, tubing and co-extrusion.

This grade is available as pellet form for injection, extrusion, compression.

DESIGNATION

PVDF

MAIN APPLICATIONS

- Plenum Conduit
- Plenum Cable

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melt viscosity, 230°C (445°F) at 100 s-1	9 - 16 kPo	ASTM D3835
Melt flow index (MFR), 235°C / 5 kg (455°F / 11 lb)	1 - 15 g/10min	ASTM D1238
Melt volume flow rate (MVR)	5.8 cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Yield stress, 23°C (73°F)	11.7 - 19.3 MPa	ASTM D638
Yield strain, 23°C (73°F), 50 mm/min	18 %	ISO 527-1/-2
Stress at break, 23°C (73°F)	13.8 - 31 MPa	ASTM D638
Nominal strain at break, 23°C (73°F), 50 mm/min	>50 %	ISO 527-1/-2
Compression strength, 23°C (73°F)	13.8 - 20.7 MPa	ASTM D695
Izod impact unnotched strength, 23°C (73°F)	No Break	ASTM D256
Izod impact notched strength, 23°C (73°F)	No Break	ASTM D256
Charpy notched impact strength, 23°C (73°F)	No Break	ISO 179 1eA
Hardness, Shore D	50 - 57	ASTM D2240
Flexural modulus, 23°C (73°F)	193 - 276 MPa	ASTM D790
Tensile modulus, 23°C (73°F)	350 MPa	ASTM D638
Coefficient of friction dynamic vs steel, 23°C (73°F)	0.54	ASTM D1895
Coefficient of friction static vs steel, 23°C (73°F)	0.49	ASTM D1894
Abrasion resistance, Wheel CS 17, load 1 kg, 1000 cycles	28 - 33 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
Limiting oxygen index (LOI)	42 %	ASTM D2863
Yellow card available	yes	
Coefficient of linear thermal expansion, 23°C (73°F)	153 - 194 10E-6 / °K	ASTM D696
Specific heat temperature, 23°C (73°F)	745 - 958	ISO 11357-1/-2
Heat deflection temperature, 1.8 MPa	31 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa, 138°C/h	26.7 - 37.8 °C	ASTM D648
Thermal conductivity	0.144 - 0.18 W/m-K	ASTM D433
Melting temperature, 10°C/min	122 °C	ISO 11357-1/-3

ELECTRICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Dielectric constant, 1kHz	4.5 - 13.5	ASTM D150
Surface resistivity, 23°C (73,4°F)	8.5E+11 - 9.2E+11 ohm/sq	ASTM D257
Volumic (transversal) resistivity, DC, 20°C (68°F)/50%RH	2.0E+12 ohm*m	ASTM D257
Dissipation factor	0.05 - 0.29	ASTM D150

OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Specific gravity, 23°C (73°F)	1.8 - 1.82 g/cm ³	
Water absorption, Saturated in water at 23°C (73°F)	0.05 %	ISO 62

SPECIAL CHARACTERISTICS

- Flame & smoke

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