KYNAR®

TECHNICAL DATA SHEET

KYNAR SUPERFLEX® 2500-20

FLUORINATED COPOLYMER PELLET

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.

TYPE

PVDF

MAIN APPLICATIONS

- plenum conduit
- plenum cable

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melt viscosity, 230°C (446°F) at 100 s-1	9 - 16	kPo	ASTM D3835
Melt flow index (MFR), 230°C / 5 kg (446°F / 11 lb)	1 - 15	g/10min	ASTM D1238
Melt volume flow rate (MVR), 230°C / 5 kg (446°F / 11 lb)	5.8	cm^3/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Yield stress, 23°C (73°F)	11.7 - 19.3	MPa	ASTM D638
Yield strain, 23°C (73°F)	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	%	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	TYPICAL VALUE	UNIT	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	TYPICAL VALUE	UNIT	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	TYPICAL VALUE	UNIT	TEST STANDARD
Density, 23°C (73°F)	1.8 - 1.82	g/cm³	ISO 1183-1
Water absorption, at equilibrium at 23°C (73°F) / Immersion	0.05	%	ISO 62

PACKAGING

Available packaging:
- 1000 kg / 2205 lb rigid container
- 25 kg / 55 lb rigid container
- 680 kg / 1500 lb big bag
- 680 kg /1500 lb rigid container

PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 180°C / 210°C / 240°C (355°F / 410°F / 465°F)
- Typical mold temperature - Injection molding: 20-80°C (70-175°F)

SPECIAL CHARACTERISTICS

- Flame & smoke

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