KYNAR SUPERFLEX®
2500-20

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.

PROPERTIES	VALUE	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	5.8	cm³/10 min	ISO 1133
Temperature	232	°C	-
	450	°F	
Load	3.8	kg	-
	8.38	lb	
Melt Flow Rate	1 - 15	g/10min	ASTM D1238
Temperature	230	°C	-
Load	3.8	kg	-
Melt Viscosity, 230°C, 100 s^{-1}	9 - 16	kPoise	ASTM D3835
MECHANICAL PROPERTIES			
Tensile Modulus	350	MPa	ISO 527-1/-2
	50800	psi	
Tensile Modulus, 73 °F	241 - 379	MPa	ASTM D638
	35000 - 55000	psi	
Yield Stress	15	MPa	ISO 527-1/-2
	2180	psi	
Tensile Strength at Yield, 73 °F	11.7 - 19.3	MPa	ASTM D638
	1700 - 2800	psi	
Yield Strain	18	%	ISO 527-1/-2
Elongation at Yield, 73 °F	17 - 25	%	ASTM D638
Nominal Strain at Break	>50	%	ISO 527-1/-2
Tensile Strength at Break, 73 °F	13.8 - 31	MPa	ASTM D638
	2000 - 4500	psi	
Elongation at Break, 73 °F	300 - 400	%	ASTM D638
Taber Abrasion, CS 17 1000g:pad	28 - 33	mg/1000 cycles	ASTM-G195-13A

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Hardness, Shore D, 73 °F	50 - 57	-	ASTM D2240
Flexural Modulus, 73 °F	193 - 276	MPa	ASTM D790
	28000 - 40000	psi	
Flexural Strength @ 5% Strain, 73 °F	10.3 - 17.2	MPa	ASTM D790
	1500 - 2500	psi	
Compressive Strength, 73 °F	13.8 - 20.7	MPa	ASTM D695
	2000 - 3000	psi	
Charpy Notched Impact Strength, +23°C	No Break	kJ/m²	ISO 179/1eA
Unnotched Impact Strength, 73 °F	No Break	kJ/m	ASTM D256
Notched Impact Strength, 73 °F	No Break	kJ/m	ASTM D256
Coefficient of Friction, Static vs. Steel, 73 °F	0.49	-	ASTM D1894
Coefficient of Friction, Dynamic vs. Steel, 73 °F	0.54	-	ASTM D1894
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	122	°C	ISO 11357-1/-3
Melting Point	117 - 125	°C	ASTM D3418
Glass Transition Temperature, 10°C/min	-40	°C	ISO 11357-1/-2
Glass Transition Temperature (Tg)	-43.3 - -40	°C	ASTM D7028
	-46 - -40	°F	
Temp. of Deflection Under Load, 1.80 MPa	31	°C	ISO 75-1/-2
	88	°F	
Heat Deflection Temperature, 264 Psi, 248 °F/hr	26.7 - 37.8	°C	ASTM D648
	80 - 100	°F	
Coefficient of Thermal Expansion, 73 °F	15.3 - 19.4	10E-5/°C	ASTM D696
	8.5 - 10.8	10E-5/°F	
Burning Behav. at 1.5 mm Nominal Thickness	V-0	class	IEC 60695-11-10
Thickness Tested	1.5	mm	-
	0.0591	in	
Yellow Card available	yes	-	-
Burning Behav. at Thickness h	V-0	class	IEC 60695-11-10
Thickness Tested	1.0	mm	-
	0.0394	in	
Oxygen Index	44	%	ISO 4589-1/-2
Limiting Oxygen Index	42	%	ASTM D2863
Thermal Conductivity	0.144 - 0.18	W/(m K)	ASTM D433
	1 - 1.25	BTU in /(hr ft2 F)	

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Specific Heat	745 - 958	J/(kg K)	DSC
	0.28 - 0.36	BTU/(lb·°F)	
Thermal Decomposition TGA, in air	375	°C	1% wt. loss
	707	°F	
Thermal Decomposition TGA, in nitrogen	410	°C	1% wt. loss
	770	°F	
ELECTRICAL PROPERTIES			
Dielectric Constant, 1 kHz	4.5 - 13.5	-	ASTM D150
Dissipation Factor, 100 kHz	0.05 - 0.29	-	ASTM D150
Volume Resistivity, DC 68 °F, 65% R.H.	2E14	Ohm*cm	ASTM D257
Surface Resistivity, 73 °F	8.5E11 - 9.2E11	Ohm per square	ASTM D257
Dielectric (Electric) Strength	12	kV/mm	IEC 60243-1
	305	kV/in	
Dielectric (Electric) Strength, 73°F	0.8 - 1.1	kV/mil	ASTM D149
OTHER PROPERTIES			
Water Absorption, 23°C, immersion, equilibrium	0.03	%	ISO 62
Water Absorption	≤0.07	%	ASTM D570
Density	1790	kg/m³	ISO 1183
	1.79	g/cm³	
Specific Gravity, 73 °F	1.8 - 1.82	-	ASTM D792
OPTICAL PROPERTIES			
Refractive Index @ sodium D line	1.4	-	ASTM D542

PROCESSING

Injection Molding, Sheet Extrusion, Coating, Transfer Molding

DELIVERY FORM

Pellets

SPECIAL CHARACTERISTICS

Heat Stabilized, Light Stabilized

REGIONAL AVAILABILITY

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

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