

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.

MAIN CHARACTERISTICS

PROPERTIES	VALUE	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	5.8	cm ³ /10min	ISO 1133
Temperature	232	°C	-
Load	3.8	kg	-
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
Tensile Modulus, 73 °F	241 - 379	MPa	ASTM D638
Yield stress	15	MPa	ISO 527-1/-2
Tensile Strength at Yield, 73 °F	11.7 - 19.3	MPa	ASTM D638
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
Elongation at Break, 73 °F	500 - 800	%	ASTM D638
Taber Abrasion, CS 17 1000g:pad	28 - 33	mg/1000 cycles	ASTM-G195-13A
Hardness, Shore D, 73 °F	50 - 57	-	ASTM D2240
Flexural Modulus, 73 °F	193 - 276	MPa	ASTM D790
Flexural Strength @ 5% Strain, 73 °F	10.3 - 17.2	MPa	ASTM D790
Compressive Strength, 73 °F	13.8 - 20.7	MPa	ASTM D695
Charpy Notched Impact Strength, + 23°C	No Break	kJ/m ²	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			

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KYNAR SUPERFLEX®
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Melting Temperature, 10°C/min	122	°C	ISO 11357-1/-3
Melting Point, 73 °F	117 - 125	°C	ASTM D3418
Glass Transition Temperature, 10°C/min	-40	°C	ISO 11357-1/-2
Glass Transition Temperature (T _g)	-43.3 - -40	°C	ASTM D7028
Temp. of Deflection Under Load, 1.80 MPa	31	°C	ISO 75-1/-2
Heat Deflection Temperature, 264 Psi, 248 °F/hr	26.7 - 37.8	°C	ASTM D648
Coefficient of Thermal Expansion, 73 °F	15.3 - 19.4	10E-5/°C	ASTM D696
Burning Behav. at 1.5 mm Nominal Thickness	V-0	class	IEC 60695-11-10
Thickness Tested	1.5	mm	-
Yellow Card available	yes	-	-
Burning Behav. at Thickness h	V-0	class	IEC 60695-11-10
Thickness Tested	1.0	mm	-
Oxygen Index	44	%	ISO 4589-1/-2
Limiting Oxygen Index, 73 °F	42	%	ASTM D2863
Thermal Conductivity	0.144 - 0.18	W/(m K)	ASTM D433
Specific Heat	745 - 958	J/(kg K)	DSC
Thermal Decomposition TGA, in air	375	°C	1% wt. loss
Thermal Decomposition TGA, in nitrogen	410	°C	1% wt. loss
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
Dielectric (Electric) Strength, 73°F	0.8 - 1.1	kV/mil	ASTM D149
OTHER PROPERTIES			
Water Absorption	0.03	%	Sim. to ISO 62
Water Absorption	≤0.07	%	ASTM D570
Density	1790	kg/m³	ISO 1183
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

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KYNAR SUPERFLEX® 2500-20

America, Near East/Africa



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