

KYNAR FLEX® 2850-04

Kynar Flex® resins are fluorinated thermoplastic copolymers.

Outstanding characteristics: chemical resistance, imperviousness to UV, high barrier properties, high purity, good mechanical and thermomechanical properties.

Kynar Flex® 2850-04 resin is a standard grade of granules less flexible than the grade Kynar Flex® 2800-20 resin with a higher melting point.

It has a UL RTI temperature rating of 140 degrees C.

[UL Yellow Card](#)

MAIN CHARACTERISTICS

PROPERTIES	VALUE	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	15	cm ³ /10min	ISO 1133
Temperature	232	°C	-
Load	3.8	kg	-
Melt Flow Rate	4 - 25	g/10min	ASTM D1238
Temperature	230	°C	-
Load	3.8	kg	-
Melt Viscosity, 230°C, 100 s ⁻¹	4 - 8	kPoise	ASTM D3835
MECHANICAL PROPERTIES			
Tensile Modulus	1300	MPa	ISO 527-1/-2
Tensile Modulus, 73 °F	1030 - 1520	MPa	ASTM D638
Yield stress	40	MPa	ISO 527-1/-2
Tensile Strength at Yield, 73 °F	31 - 41.4	MPa	ASTM D638
Yield strain	10	%	ISO 527-1/-2
Elongation at Yield, 73 °F	5 - 15	%	ASTM D638
Nominal Strain at Break	>50	%	ISO 527-1/-2
Tensile Strength at Break, 73 °F	27.6 - 48.3	MPa	ASTM D638
Elongation at Break, 73 °F	30 - 200	%	ASTM D638
Taber Abrasion, CS 17 1000g:pad	6 - 9	mg/1000 cycles	ASTM-G195-13A
Hardness, Shore D, 73 °F	70 - 75	-	ASTM D2240
Flexural Modulus, 73 °F	1030 - 1240	MPa	ASTM D790
Flexural Strength @ 5% Strain, 73 °F	20.7 - 34.5	MPa	ASTM D790
Compressive Strength, 73 °F	41.4 - 58.6	MPa	ASTM D695
Charpy Notched Impact Strength, +23°C	8	kJ/m ²	ISO 179/1eA
Unnotched Impact Strength, 73 °F	No Break	kJ/m	ASTM D256
Notched Impact Strength, 73 °F	0.107 - 0.427	kJ/m	ASTM D256
Coefficient of Friction, Static vs. Steel, 73 °F	0.26	-	ASTM D1894

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KYNAR FLEX® 2850-04

Coefficient of Friction, Dynamic vs. Steel, 73 °F	0.19	-	ASTM D1894
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	157	°C	ISO 11357-1/-3
Melting Point, 73 °F	155 - 160	°C	ASTM D3418
Glass Transition Temperature, 10°C/min	-40	°C	ISO 11357-1/-2
Glass Transition Temperature (Tg)	-40.6 - -38.3	°C	ASTM D7028
Temperature Rating	140	°C	UL RTI
Temp. of Deflection Under Load, 1.80 MPa	46	°C	ISO 75-1/-2
Heat Deflection Temperature, 264 Psi, 248 °F/hr	37.8 - 55	°C	ASTM D648
Heat Deflection Temperature, 66 Psi, 248 °F/hr	60 - 75	°C	ASTM D648
Coefficient of Thermal Expansion, 73 °F	12.6 - 18.5	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	0.8	mm	-
Oxygen Index	43	%	ISO 4589-1/-2
Limiting Oxygen Index, 73 °F	43	%	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
Relative Thermal Index, Mechanical	140	°C	UL 746B
Relative Thermal Index, Electrical	140	°C	UL 746B
ELECTRICAL PROPERTIES			
Dielectric Constant, 1 kHz	3.5 - 10.2	-	ASTM D150
Dissipation Factor, 100 kHz	0.01 - 0.22	-	ASTM D150
Volume Resistivity, DC 68 °F, 65% R.H.	2E14	Ohm*cm	ASTM D257
Dielectric (Electric) Strength, 73 °F	1.3 - 1.6	kV/mil	ASTM D149
OTHER PROPERTIES			
Water Absorption	0.03 - 0.05	%	ASTM D570
Specific Gravity, 73 °F	1.77 - 1.8	-	ASTM D792
OPTICAL PROPERTIES			
Refractive Index @ sodium D line	1.42	-	ASTM D542

MAIN APPLICATIONS:

- injection molded and co-extrusion applications requiring the high chemical and temperature resistance properties of

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KYNAR FLEX® 2850-04

Kynar 2850-00 resin.

REGIONAL AVAILABILITY

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

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