

KYNAR FLEX® 2900-04

Kynar Flex® resins are fluorinated thermoplastic copolymers.

Kynar Flex® 2900-04 resin is a pelletized, semi-crystalline VF based copolymer. It can be used in extrusion applications such as flexible wire jacketing, or injection molding applications where higher Limiting Oxygen Index is needed for flame and smoke applications.

Additional characteristics:

- Excellent thermal stability
- Excellent abrasion resistance
- Extremely flexible and tough

Meets UL 910 requirements

MAIN CHARACTERISTICS

PROPERTIES	VALUE	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	9	cm ³ /10min	ISO 1133
Temperature	232	°C	-
Load	3.8	kg	-
Melt Flow Rate	4 - 21	g/10min	ASTM D1238
Temperature	230	°C	-
Load	3.8	kg	-
Melt Viscosity, 230°C, 100 s-1	6 - 12	kPoise	ASTM D3835
MECHANICAL PROPERTIES			
Tensile Modulus	700	MPa	ISO 527-1/-2
Tensile Modulus, 73 °F	552 - 896	MPa	ASTM D638
Yield stress	25	MPa	ISO 527-1/-2
Tensile Strength at Yield, 73 °F	20 - 34.5	MPa	ASTM D638
Yield strain	14.5	%	ISO 527-1/-2
Elongation at Yield, 73 °F	15 - 25	%	ASTM D638
Nominal Strain at Break	>50	%	ISO 527-1/-2
Tensile Strength at Break, 73 °F	20 - 27.6	MPa	ASTM D638
Elongation at Break, 73 °F	100 - 300	%	ASTM D638
Taber Abrasion, CS 17 1000g:pad	16 - 19	mg/1000 cycles	ASTM-G195-13A
Hardness, Shore D, 73 °F	60 - 70	-	ASTM D2240
Flexural Modulus, 73 °F	483 - 758	MPa	ASTM D790
Flexural Strength @ 5% Strain, 73 °F	20.7 - 34.5	MPa	ASTM D790
Compressive Strength, 73 °F	31 - 41.4	MPa	ASTM D695
Unnotched Impact Strength, 73 °F	No Break	kJ/m	ASTM D256
Notched Impact Strength, 73 °F	0.534 - 1.07	kJ/m	ASTM D256
Coefficient of Friction, Static vs. Steel, 73 °F	0.33	-	ASTM D1894
Coefficient of Friction, Dynamic vs. Steel, 73 °F	0.33	-	ASTM D1894

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KYNAR FLEX®
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THERMAL PROPERTIES			
Melting Temperature, 10°C/min	143	°C	ISO 11357-1/-3
Melting Point, 73 °F	140 - 145	°C	ASTM D3418
Glass Transition Temperature, 10°C/min	-40	°C	ISO 11357-1/-2
Glass Transition Temperature (Tg)	-41.1 - -39.4	°C	ASTM D7028
Heat Deflection Temperature, 264 Psi, 248 °F/hr	40 - 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	75	%	ISO 4589-1/-2
Limiting Oxygen Index, 73 °F	75	%	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	3.5 - 10.6	-	ASTM D150
Dissipation Factor, 100 kHz	0.02 - 0.21	-	ASTM D150
Volume Resistivity	2E12	Ohm*m	IEC 60093
Volume Resistivity, DC 68 °F, 65% R.H.	2E14	Ohm*cm	ASTM D257
Dielectric (Electric) Strength, 73°F	1.3 - 1.5	kV/mil	ASTM D149
OTHER PROPERTIES			
Water Absorption	0.03	%	Sim. to ISO 62
Water Absorption	0.03 - 0.05	%	ASTM D570
Density	1780	kg/m³	ISO 1183
Specific Gravity, 73 °F	1.77 - 1.8	-	ASTM D792

REGIONAL AVAILABILITY

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

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