

KYNAR®

370

Kynar® resins are fluorinated thermoplastic homopolymers.

Kynar® 370 resin is a thermoplastic fluorinated polymer resin. The properties are the same as standard grade: chemical resistance, resistance to UV, low permeation, high purity, excellent mechanical behavior with a higher HDT.

This grade is especially modified in order to have a reduced mold shrinkage, low thermal expansion factor. Moreover, this grade has an increased thermal and electrical conductivity.

This grade is available as pellet form for injection, extrusion, compression.

PROPERTIES	VALUE	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	5.8	cm ³ /10min	ISO 1133
Temperature	230	°C	-
	446	°F	-
Load	3.8	kg	-
	8.38	lb	-
Melt Flow Rate	5 - 17	g/10min	ASTM D1238
Temperature	230	°C	-
Load	3.8	kg	-
Molding Shrinkage, parallel	0.7	%	ISO 294-4, 2577
Molding Shrinkage, normal	0.7	%	ISO 294-4, 2577
Melt Viscosity, 230°C, 100 s-1	8 - 13	kPoise	ASTM D3835
MECHANICAL PROPERTIES			
Tensile Modulus, 73 °F	3100 - 5170	MPa	ASTM D638
	450000 - 750000	psi	
Tensile Strength at Yield, 73 °F	34.5 - 55.2	MPa	ASTM D638
	5000 - 8000	psi	
Elongation at Yield, 73 °F	0 - 4	%	ASTM D638
Tensile Strength at Break, 73 °F	37.9 - 55.2	MPa	ASTM D638
	5500 - 8000	psi	
Elongation at Break, 73 °F	0 - 20	%	ASTM D638
Hardness, Shore D, 73 °F	74 - 79	-	ASTM D2240
Flexural Modulus, 73 °F	5520 - 6890	MPa	ASTM D790
	800000 - 1000000	psi	
Flexural Stength @ 5% Strain, 73 °F	138 - 207	MPa	ASTM D790
	20000 - 30000	psi	

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Compressive Strength, 73 °F	138 - 172	MPa	ASTM D695
	20000 - 25000	psi	
Unnotched Impact Strength, 73 °F	0.267 - 0.534	kJ/m	ASTM D256
	5 - 10	ftlb/in	
Notched Impact Strength, 73 °F	0.04 - 0.0801	kJ/m	ASTM D256
	0.75 - 1.5	ftlb/in	
Coefficient of Friction, Static vs. Steel, 73 °F	0.18	-	ASTM D1894
Coefficient of Friction, Dynamic vs. Steel, 73 °F	0.12	-	ASTM D1894
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	170	°C	ISO 11357-1/-3
Melting Point, 73 °F	165 - 170	°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
	-41 - -37	°F	
Temp. of Deflection Under Load, 1.80 MPa	120	°C	ISO 75-1/-2
	248	°F	
Heat Deflection Temperature, 264 Psi, 248 °F/hr	110 - 127	°C	ASTM D648
	230 - 260	°F	
Heat Deflection Temperature, 66 Psi, 248 °F/hr	132 - 149	°C	ASTM D648
	270 - 300	°F	
Coeff. of Linear Thermal Expansion, parallel	40	E-6/K	ISO 11359-1/-2
Coefficient of Thermal Expansion, 73 °F	3.6 - 4.5	10E-5/°C	ASTM D696
	2 - 2.5	10E-5/°F	
Burning Behav. at 1.5 mm Nominal Thickness	V-0	class	IEC 60695-11-10
Burning Behav. at Thickness h	V-0	class	IEC 60695-11-10
Thickness Tested	0.8	mm	-
	0.0315	in	
Limiting Oxygen Index, 73 °F	44	%	ASTM D2863
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			
Relative Permittivity, 100Hz	33	-	IEC 60250

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Dielectric Constant, 1 kHz	28.8 - 33.5	-	ASTM D150
Dissipation Factor, 100Hz	610	E-4	IEC 60250
Dissipation Factor, 100 kHz	0.06 - 0.08	-	ASTM D150
Volume Resistivity	1E11	Ohm*m	IEC 60093
Volume Resistivity, DC 68 °F, 65% R.H.	≥1E11	Ohm*cm	ASTM D257
OTHER PROPERTIES			
Water Absorption	0.02	%	Sim. to ISO 62
Specific Gravity, 73 °F	1.84 - 1.88	-	ASTM D792
Density of melt	1880	kg/m³	-
	117	lb/ft³	

PROCESSING	
Injection Molding	
DELIVERY FORM	
Pellets	
REGIONAL AVAILABILITY	
North America, Europe, Asia Pacific, South and Central America, Near East/Africa	