

KYNAR FLEX®

2750-01

Kynar Flex® resins are fluorinated thermoplastic copolymers.

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

Kynar Flex® 2750-01 resin is a grade of granules to be used where maximum flexibility or impact strength is required. This product is **NSF/ANSI/CAN 61** certified.

A powder form is available as **Kynar Flex® 2751 resin**.

PROPERTIES	VALUE	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	1.9	cm ³ /10min	ISO 1133
Temperature	230	°C	-
	446	°F	-
Load	5	kg	-
	11	lb	-
Melt Flow Rate	4 - 14	g/10min	ASTM D1238
Temperature	230	°C	-
Load	12.5	kg	-
Melt Viscosity, 230°C, 100 s-1	20 - 25	kPoise	ASTM D3835
MECHANICAL PROPERTIES			
Tensile Modulus	526	MPa	ISO 527-1/-2
	76300	psi	
Tensile Modulus, 73 °F	276 - 448	MPa	ASTM D638
	40000 - 65000	psi	
Yield stress	21	MPa	ISO 527-1/-2
	3050	psi	
Tensile Strength at Yield, 73 °F	13.8 - 21.4	MPa	ASTM D638
	2000 - 3100	psi	
Yield strain	15	%	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
	2900 - 4000	psi	
Elongation at Break, 73 °F	200 - 400	%	ASTM D638
Taber Abrasion, CS 17 1000g:pad	21 - 25	mg/1000 cycles	ASTM-G195-13A
Hardness, Shore D, 73 °F	57 - 62	-	ASTM D2240

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Flexural Modulus, 73 °F	276 - 414	MPa	ASTM D790
	40000 - 60000	psi	
Flexural Stength @ 5% Strain, 73 °F	13.8 - 24.1	MPa	ASTM D790
	2000 - 3500	psi	
Compressive Strength, 73 °F	24.1 - 31	MPa	ASTM D695
	3500 - 4500	psi	
Charpy Notched Impact Strength, +23°C	No Break	kJ/m²	ISO 179/1eA
Notched Impact Strength, 73 °F	No Break	kJ/m	ASTM D256
Coefficient of Friction, Static vs. Steel, 73 °F	0.55	-	ASTM D1894
Coefficient of Friction, Dynamic vs. Steel, 73 °F	0.54	-	ASTM D1894
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	134	°C	ISO 11357-1/-3
Melting Point, 73 °F	130 - 138	°C	ASTM D3418
Glass Transition Temperature, 10°C/min	-40	°C	ISO 11357-1/-2
Glass Transition Temperature (Tg)	-40	°C	ASTM D7028
Temp. of Deflection Under Load, 1.80 MPa	43	°C	ISO 75-1/-2
	109	°F	
Heat Deflection Temperature, 264 Psi, 248 °F/hr	35 - 51.7	°C	ASTM D648
	95 - 125	°F	
Temp. of Deflection Under Load, 0.45 MPa	57	°C	ISO 75-1/-2
	135	°F	
Heat Deflection Temperature, 66 Psi, 248 °F/hr	48.9 - 65.6	°C	ASTM D648
	120 - 150	°F	
Vicat Softening Temperature, 50°C/h 50N	61	°C	ISO 306
	142	°F	
Coeff. of Linear Thermal Expansion, parallel	177	E-6/K	ISO 11359-1/-2
Coefficient of Thermal Expansion, 73 °F	16.2 - 21.6	10E-5/°C	ASTM D696
	9 - 12	10E-5/°F	
Burning Behav. at 1.5 mm Nominal Thickness	V-0	class	IEC 60695-11-10
Thickness Tested	1.6	mm	-
	0.0630	in	
Burning Behav. at Thickness h	V-0	class	IEC 60695-11-10
Thickness Tested	0.8	mm	-
	0.0315	in	

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Oxygen Index	49	%	ISO 4589-1/-2
Limiting Oxygen Index, 73 °F	43	%	ASTM D2863
Thermal Conductivity	0.144 - 0.18	W/(m K)	ASTM D433
	1 - 1.25	BTU in /(hr ft2 F)	
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			
Relative Permittivity, 100Hz	11.5	-	IEC 60250
Relative Permittivity, 1MHz	7	-	IEC 60250
Dielectric Constant, 1 kHz	3.8 - 12.1	-	ASTM D150
Dissipation Factor, 100Hz	240	E-4	IEC 60250
Dissipation Factor, 100 kHz	0.02 - 0.24	-	ASTM D150
Volume Resistivity	2E12	Ohm*m	IEC 60093
Volume Resistivity, DC 68 °F, 65% R.H.	2E14	Ohm*cm	ASTM D257
Surface Resistivity, 73 °F	4.8E11 - 5.1E11	Ohm per square	ASTM D257
Dielectric (Electric) Strength, 73°F	1.1 - 1.3	kV/mil	ASTM D149
OTHER PROPERTIES			
Water Absorption	0.03	%	Sim. to ISO 62
Water Absorption	0.03 - 0.06	%	ASTM D570
Density	1780	kg/m³	ISO 1183
	1.78	g/cm³	
Specific Gravity, 73 °F	1.78 - 1.8	-	ASTM D792
OPTICAL PROPERTIES			
Refractive Index @ sodium D line	1.41	-	ASTM D542

MAIN APPLICATIONS:

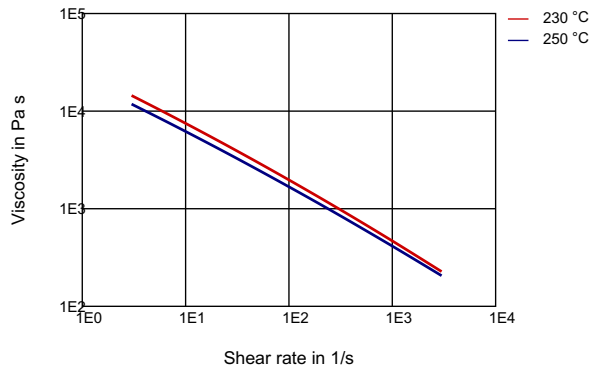
- flexible tubing
- corrosion protection in the chemical industry
- off-shore
- wire and cable

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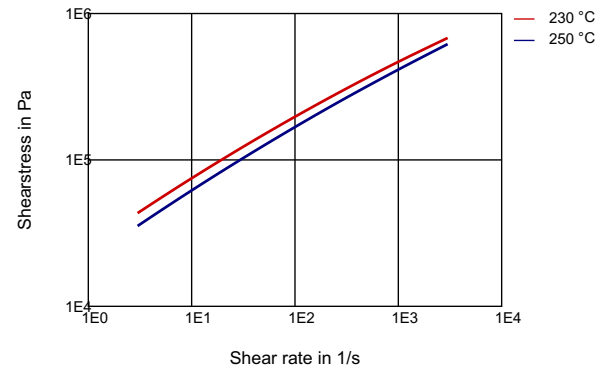
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DIAGRAMS

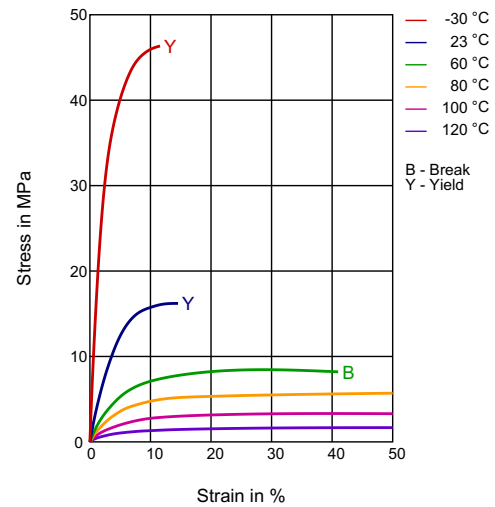
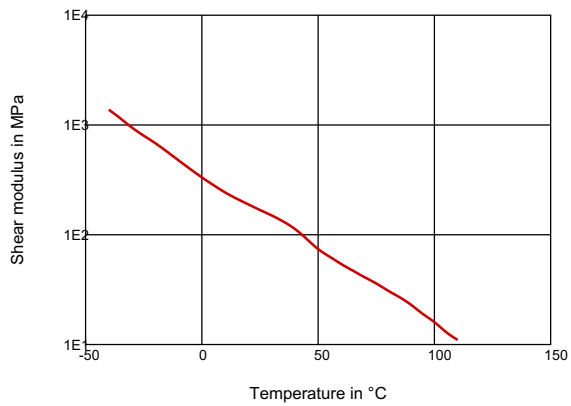
VISCOSITY-SHEAR RATE



SHEARSTRESS-SHEAR RATE



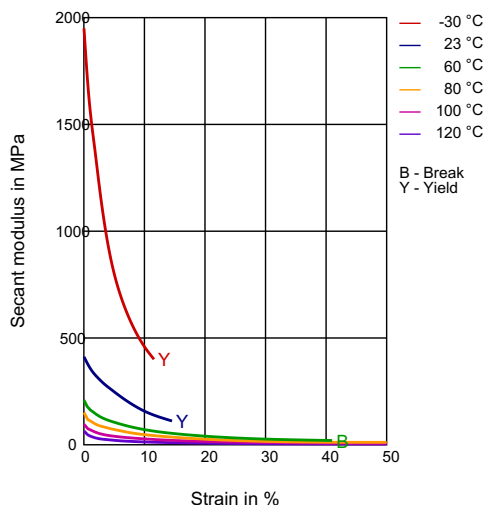
DYNAMIC SHEAR MODULUS-TEMPERATURE & STRESS-STRAIN



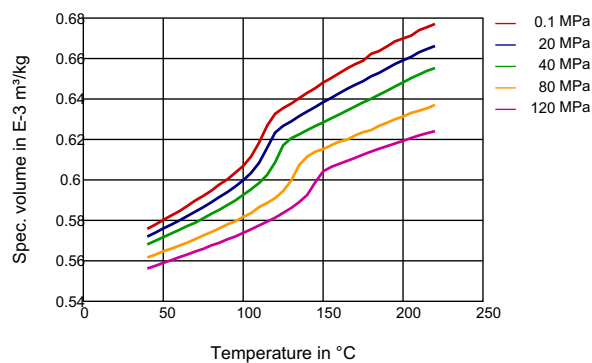
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SECANT MODULUS-STRAIN



SPECIFIC VOLUME-TEMPERATURE (PVT)



PROCESSING

Injection Molding, Sheet Extrusion, Other Extrusion, 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