

Arkema Group KYNAR® 370 Polyvinylidene Fluoride (PVDF) Homopolymer - Injection Molding

Category : Polymer , Thermoplastic , Fluoropolymer , PVDF , Polyvinylidene fluoride (PVDF), Molded/Extruded

Material Notes:

Characteristics: Natural resin - translucent, off-white hemispheres. Low melt shrinkage, graphite powder filled. High stability in harsh thermal, chemical and ultraviolet environments. High toughness and mechanical strength, low permeability, fire resistance, abrasion resistance; low-smoke emission; high purity

Applications: Chemical processing – production, storage and transfer of corrosive fluids
Electronics – protective sheathing, plenum and wiring insulation
Semi-conductor industry
Food stuff and Healthcare industries
Transportation – fuel line and pipe, thermoformed body components

Information provided by Arkema Inc.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Arkema-Group-KYNAR-370-Polyvinylidene-Fluoride-PVDF-Homopolymer-Injection-Molding.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.84 - 1.88 g/cc	1.84 - 1.88 g/cc	ASTM D792
Bulk Density	0.961 g/cc	0.0347 lb/in ³	
Water Absorption	0.040 - 0.060 % @Time 86400 sec	0.040 - 0.060 % @Time 24.0 hour	Immersion; ASTM D570
Viscosity	800000 - 1.30e+6 cP @Shear Rate 100 1/s, Temperature 232 °C	800000 - 1.30e+6 cP @Shear Rate 100 1/s, Temperature 450 °F	Melt Viscosity; ASTM D3835
Linear Mold Shrinkage, Flow	0.012 - 0.035 cm/cm @Time 86400 sec	0.012 - 0.035 in/in @Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.0080 - 0.030 cm/cm @Time 86400 sec	0.0080 - 0.030 in/in @Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	74 - 79	74 - 79	ASTM D2240
Tensile Strength at Break	38.0 - 55.0 MPa	5510 - 7980 psi	ASTM D638
Tensile Strength, Yield	34.0 - 55.0 MPa	4930 - 7980 psi	ASTM D638
Elongation at Break	<= 20 %	<= 20 %	ASTM D638
Elongation at Yield	<= 4.0 %	<= 4.0 %	ASTM D638
Creep Strength	3.70 MPa @Temperature 90.0 °C, Time 360000 sec	537 psi @Temperature 194 °F, Time 100 hour	Deflection = 3.3%; Flexural Creep

Mechanical Properties	Metric	English	Comments
	@Temperature 90.0 °C, Time 3.60e+6 sec	@Temperature 194 °F, Time 1000 hour	Deflection = 3.4%; Flexural Creep
	3.70 MPa	537 psi	
	@Temperature 60.0 °C, Time 360000 sec	@Temperature 140 °F, Time 100 hour	Deflection = 1.5%; Flexural Creep
	3.70 MPa	537 psi	
	@Temperature 60.0 °C, Time 3.60e+6 sec	@Temperature 140 °F, Time 1000 hour	Deflection = 1.7%; Flexural Creep
Tensile Modulus	3.102 - 5.171 GPa	449.9 - 750.0 ksi	ASTM D638
Flexural Strength	138 - 207 MPa @Strain 5.00 %	20000 - 30000 psi @Strain 5.00 %	ASTM D790
Flexural Modulus	5.515 - 6.895 GPa	799.9 - 1000 ksi	ASTM D790
Compressive Strength	138 - 172 MPa	20000 - 24900 psi	ASTM D695
Izod Impact, Notched	0.400 - 0.801 J/cm	0.750 - 1.50 ft-lb/in	ASTM D256
Izod Impact, Unnotched	2.67 - 5.34 J/cm	5.00 - 10.0 ft-lb/in	ASTM D256
Coefficient of Friction, Dynamic	0.12	0.12	vs. steel; ASTM D1894
Coefficient of Friction, Static	0.18	0.18	vs. steel; ASTM D1894

Thermal Properties	Metric	English	Comments
CTE, linear	36.0 - 45.0 µm/m-°C	20.0 - 25.0 µin/in-°F	ASTM D696
Melting Point	165 - 172 °C	329 - 342 °F	
Deflection Temperature at 0.46 MPa (66 psi)	132 - 149 °C	270 - 300 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	104 - 127 °C	219 - 261 °F	ASTM D648
Glass Transition Temp, Tg	-40.0 - -38.0 °C @Frequency 1.00 Hz	-40.0 - -36.4 °F @Frequency 1.00 Hz	DMA
Decomposition Temperature	375 °C	707 °F	1% wt loss / in air; TGA
	410 °C	770 °F	1% wt loss / in nitrogen; TGA
Flammability, UL94	V-0	V-0	
Oxygen Index	44 %	44 %	ASTM D2868

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+11 ohm-cm	1.00e+11 ohm-cm	65% RH; ASTM D257
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Dielectric Constant	28.3	28.3	ASTM D150
	@Frequency 1.00e+8 Hz	@Frequency 1.00e+8 Hz	
	33.5	33.5	ASTM D150
	@Frequency 100 Hz	@Frequency 100 Hz	
Dissipation Factor	0.060 - 0.080	0.060 - 0.080	ASTM D150
	@Frequency 100 Hz	@Frequency 100 Hz	

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	190 - 210 °C	374 - 410 °F	Injection Molding
	195 - 220 °C	383 - 428 °F	Tube Extrusion
Middle Barrel Temperature	200 - 220 °C	392 - 428 °F	Injection Molding
	210 - 240 °C	410 - 464 °F	Tube Extrusion
Front Barrel Temperature	200 - 240 °C	392 - 464 °F	Injection Molding
	210 - 240 °C	410 - 464 °F	Tube Extrusion
Nozzle Temperature	200 - 240 °C	392 - 464 °F	Injection Molding
Die Temperature	210 - 250 °C	410 - 482 °F	Tube Extrusion
Head Temperature	210 - 240 °C	410 - 464 °F	Tube Extrusion
Mold Temperature	50.0 - 90.0 °C	122 - 194 °F	Injection Molding

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China