

Arkema Group KYNAR FLEX® 2950-05 Polyvinylidene Fluoride Copolymer - Extrusion & Molding

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

Material Notes:

Characteristics: Natural resin - translucent, off-white hemispheres. Very flexible, flame and smoke suppressant. High stability in harsh thermal, chemical and ultraviolet environments. High toughness and mechanical strength, low permeability, abrasion resistance; 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-FLEX-2950-05-Polyvinylidene-Fluoride-Copolymer-Extrusion-Molding.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.78 - 1.80 g/cc	1.78 - 1.80 g/cc	ASTM D792
Bulk Density	0.961 g/cc	0.0347 lb/in ³	
Water Absorption	0.030 - 0.060 % @Time 86400 sec	0.030 - 0.060 % @Time 24.0 hour	Immersion; ASTM D570
Viscosity	500000 - 1.20e+6 cP @Shear Rate 100 1/s, Temperature 232 °C	500000 - 1.20e+6 cP @Shear Rate 100 1/s, Temperature 450 °F	Melt Viscosity; ASTM D3835
Melt Flow	4.0 - 17.5 g/10 min @Load 3.80 kg, Temperature 232 °C	4.0 - 17.5 g/10 min @Load 8.38 lb, Temperature 450 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	57 - 62	57 - 62	ASTM D2240
Tensile Strength at Break	20.0 - 27.0 MPa	2900 - 3920 psi	ASTM D638
Tensile Strength	4.00 MPa @Strain 20.0 %, Temperature 100 °C	580 psi @Strain 20.0 %, Temperature 212 °F	
	7.00 MPa @Strain 20.0 %, Temperature 70.0 °C	1020 psi @Strain 20.0 %, Temperature 158 °F	
	11.0 MPa @Strain 20.0 %, Temperature 50.0 °C	1600 psi @Strain 20.0 %, Temperature 122 °F	

Mechanical Properties	Metric	English	Comments
	@Strain 20.0 %, Temperature 23.0 °C	@Strain 20.0 %, Temperature 73.4 °F	
Tensile Strength, Yield	14.0 - 21.0 MPa	2030 - 3050 psi	ASTM D638
Elongation at Break	200 - 400 %	200 - 400 %	ASTM D638
Elongation at Yield	15 - 25 %	15 - 25 %	ASTM D638
Tensile Modulus	0.0900 GPa @Temperature 100 °C	13.1 ksi @Temperature 212 °F	
	0.100 GPa @Temperature 70.0 °C	14.5 ksi @Temperature 158 °F	
	0.180 GPa @Temperature 50.0 °C	26.1 ksi @Temperature 122 °F	
	0.276 - 0.448 GPa @Temperature 23.0 °C	40.0 - 65.0 ksi @Temperature 73.4 °F	ASTM D638
Flexural Strength	14.0 - 24.0 MPa @Strain 5.00 %	2030 - 3480 psi @Strain 5.00 %	ASTM D790
Flexural Modulus	0.276 - 0.414 GPa	40.0 - 60.0 ksi	ASTM D790
Compressive Strength	24.0 - 31.0 MPa	3480 - 4500 psi	ASTM D695
Izod Impact, Notched	>= NB	>= NB	ASTM D256
Izod Impact, Unnotched	>= NB	>= NB	ASTM D256
Coefficient of Friction, Dynamic	0.54	0.54	vs. steel; ASTM D1894
Coefficient of Friction, Static	0.55	0.55	vs. steel; ASTM D1894
Taber Abrasion, mg/1000 Cycles	21 - 25	21 - 25	1000 g pad; CS-17

Thermal Properties	Metric	English	Comments
CTE, linear	97.0 µm/m-°C @Temperature -40.0 °C	53.9 µin/in-°F @Temperature -40.0 °F	
	171 µm/m-°C @Temperature 0.000 °C	95.0 µin/in-°F @Temperature 32.0 °F	
	162 - 216 µm/m-°C @Temperature 22.8 °C	90.0 - 120 µin/in-°F @Temperature 73.0 °F	ASTM D696

Thermal Properties	Metric	English	Comments
	@Temperature 70.0 °C	@Temperature 158 °F	
	370 µm/m-°C	206 µin/in-°F	
	@Temperature 85.0 °C	@Temperature 185 °F	
Specific Heat Capacity	1.17 - 1.51 J/g-°C	0.280 - 0.360 BTU/lb-°F	DSC
Thermal Conductivity	0.144 - 0.180 W/m-K	1.00 - 1.25 BTU-in/hr-ft²-°F	ASTM D433
Melting Point	130 - 138 °C	266 - 280 °F	
Deflection Temperature at 0.46 MPa (66 psi)	49.0 - 65.0 °C	120 - 149 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	35.0 - 51.0 °C	95.0 - 124 °F	ASTM D648
Glass Transition Temp, Tg	-42.0 - -40.0 °C	-43.6 - -40.0 °F	DMA
	@Frequency 1.00 Hz	@Frequency 1.00 Hz	
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	43 %	43 %	ASTM D2868
	95 %	95 %	optional products; ASTM D2868

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.00e+14 ohm-cm	2.00e+14 ohm-cm	65% RH; ASTM D257
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Dielectric Constant	3.8	3.8	ASTM D150
	@Frequency 1.00e+8 Hz	@Frequency 1.00e+8 Hz	
	12.1	12.1	ASTM D150
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	43.3 - 51.2 kV/mm	1100 - 1300 kV/in	ASTM D149
Dissipation Factor	0.020 - 0.24	0.020 - 0.24	ASTM D150
	@Frequency 100 Hz	@Frequency 100 Hz	

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