

## Chevron Phillips Xtel® XK2040 Polyphenylene Sulfide Alloy

**Categories:** Polymer; Thermoplastic; Polyphenylene Sulfide (PPS); Polyphenylene Sulfide (PPS) Alloy, Glass Reinforced, Flow Enhanced




**Material Notes:** Natural Color Polyphenylene Sulfide Alloy


Xtel™ XK2040 is a high performance, glass fiber reinforced, PPS-based alloy developed to provide excellent mechanical strength and electrical properties along with excellent flow in thin-walled parts, low flash characteristics, and fast cycle times. Xtel™ XK2040 can be easily molded in conventional injection molding equipment utilizing water heated molds.

**Comments:** Test specimen molding conditions: Stock Temperature, 280-305°C; Mold Temperature, 80°C; ASTM Values Converted to SI Units

Data provided by Chevron Phillips Chemical Company LP.

**Vendors:** No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.70 g/cc	0.0614 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.090 %	0.090 %	ASTM D570
Linear Mold Shrinkage	0.0030 cm/cm	0.0030 in/in	102 mm X 102 mm X 3.2 mm Plaques, Edge Gated
Linear Mold Shrinkage, Transverse	0.0050 cm/cm	0.0050 in/in	Measured on 102 mm X 102 mm X 3.2 mm Plaques, Edge Gated
Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	170 MPa	24700 psi	ASTM D638
Elongation at Break	1.4 %	1.4 %	ASTM D638
Flexural Yield Strength	240 MPa	34800 psi	ASTM D790
Flexural Modulus	13.0 GPa	1890 ksi	ASTM D790
Compressive Yield Strength	205 MPa	29700 psi	ASTM D695
Izod Impact, Notched	0.850 J/cm	1.59 ft-lb/in	ASTM D256
Izod Impact, Unnotched	5.10 J/cm	9.55 ft-lb/in	ASTM D256
Electrical Properties	Metric	English	Comments
Dielectric Constant 	3.8 @Frequency 1e+6 Hz	3.8 @Frequency 1e+6 Hz	ASTM D150
	4.0 @Frequency 1000 Hz	4.0 @Frequency 1000 Hz	ASTM D150
Dielectric Strength	22.0 kV/mm	559 kV/in	ASTM D149
Dissipation Factor 	0.0090 @Frequency 1000 Hz	0.0090 @Frequency 1000 Hz	ASTM D150
	0.0090 @Frequency 1e+6 Hz	0.0090 @Frequency 1e+6 Hz	ASTM D150
Arc Resistance	100 sec	100 sec	ASTM D495
Comparative Tracking Index	250 V	250 V	UL 746A
Thermal Properties	Metric	English	Comments
CTE, linear 	18.0 µm/m-°C @Temperature 100 - 200 °C	10.0 µin/in-°F @Temperature 212 - 392 °F	Axial; ASTM E831

CTE, linear, Transverse to Flow 	18.0 µm/m-°C	10.0 µin/in-°F	Axial; ASTM E831
	@Temperature -50.0 - 50.0 °C	@Temperature -58.0 - 122 °F	
Deflection Temperature at 1.8 MPa (264 psi)	50.0 µm/m-°C	27.8 µin/in-°F	ASTM E831
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Flammability, UL94	92.0 µm/m-°C	51.1 µin/in-°F	ASTM E831
	@Temperature 100 - 200 °C	@Temperature 212 - 392 °F	
	250 °C	482 °F	ASTM D648
	V-0	V-0	

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