For more information and technical assistance contact:

Chevron Phillips Chemical Company LP
P.O. Box 4910
The Woodlands, TX 77387-4910
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Xtel® XK2240 and XK2340

Polyphenylene Sulfide Alloys

Xtel® XK2240 & XK2340 are glass fiber reinforced PPS based alloys that provide excellent mechanical strength, toughness, and rigidity, along with excellent flow in thin-walled parts, low flash characteristics, and fast cycle times. They can be easily molded in conventional injection molding equipment utilizing water heated molds.

Nominal Engineering Properties[1]	XK2240	XK2340	Test Method
Tensile Strength, MPa	205	195	ISO 527
Elongation, %	2.0	1.8	ISO 527
Flexural Strength, MPa	285	265	ISO 178
Flexural Modulus, GPa	12	12	ISO 178
Notched Izod Impact, kJ/m^2	10.0	8.5	ISO 180/A
Unnotched Izod Impact, kJ/m^2	40	35	ISO 180/U
Compressive Strength, MPa	255	255	ASTM D695
Tensile Strength, kpsi	28.0	27.0	ASTM D638
Elongation, %	1.9	1.8	ASTM D638
Flexural Strength, kpsi	38.0	36.0	ASTM D790
Flexural Modulus, Mpsi	1.8	1.8	ASTM D790
Notched Izod Impact, ft·lb/in, 1/8 in specimen	2.0	1.7	ASTM D256
Unnotched Izod Impact, ft·lb/in, 1/8 in specimen	13.0	12.0	ASTM D256
Compressive Strength, kpsi	37.0	37.0	ASTM D695
Heat Deflection Temperature, 264 psi (1.8 MPa), °C	245	245	ASTM D648
Heat Deflection Temperature, 264 psi (1.8 MPa), °F	470	470	ASTM D648
Coefficient of Linear Thermal Exp., X 10^{-6} in/in/°C			ASTM E831
Axial Direction, -50°C to 50°C	20	20	
Axial Direction, 100°C to 200°C	15	15	
Transverse Direction, -50°C to 50°C	55	55	
Transverse Direction, 100°C to 200°C	95	95	
Flammability Rating	HB[2]	HB[2]	UL 94
Thermal Conductivity, W/m·K	0.34	0.34	
Thermal Conductivity, BTU·in/hr·ft^2·°F	2.3	2.3	
Dielectric Strength, V/mil	550	550	ASTM D149
Dielectric Strength, kV/mm	22	22	ASTM D149

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Dielectric Constant, 1 kHz, 25°C (78°F)	4.1	4.1	ASTM D150
Dielectric Constant, 1 MHz, 25°C (78°F)	3.8	3.8	ASTM D150
Dissipation Factor, 1 kHz, 25°C (78°F)	0.02	0.02	ASTM D150
Dissipation Factor, 1 MHz, 25°C (78°F)	0.01	0.01	ASTM D150
Volume Resistivity, ohm·cm	1×10^{14}	1×10^{14}	ASTM D257
Arc Resistance, sec	100	100	ASTM D495
Comparative Tracking Index, V	275(2)	275(2)	UL 746A
Insulation Resistance, ohm (90°C, 95% RH, 48 hr)	1×10^{12}	1×10^{12}	
Mold Shrinkage(3) in/in, Flow/Transverse	0.003 / 0.006	0.003 / 0.006	
Density, g/cc	1.56	1.56	ASTM D792
Water Absorption, % (23°C, 24 hr)	0.3	0.3	ASTM D570
Color	Natural	Black	

(1) Test specimen molding conditions: Stock Temperature, 550-580°F (290-305°C); Mold Temperature, 275°F (135°C)
(2) This product is not currently UL Listed; test results indicate this level of performance
(3) Measured on 102 mm X 102 mm X 3.2 mm Plaques, Edge Gated

The nominal properties reported herein are typical of the product but do not reflect normal testing variances and therefore should not be used for specification purposes.