

Solvay Specialty Polymers Kalix® 5950 HFFR Polyamide, High Performance (HPPA), 50% Glass Fiber

Category: Polymer, Thermoplastic, Nylon

Material Notes:

Kalix® 5950 HFFR is a halogen-free, flame retardant (UL-94 V0 at 0.4 mm), highly reinforced polyamide material specifically formulated for high strength and stiffness applications where good impact resistance and excellent dimensional stability after molding are required. The formulation also addresses warpage issues associated with the anisotropic shrinkage of glass fiber reinforced materials so that close tolerance molding is more easily achieved. Its low viscosity and excellent flow properties make the material ideal for filling parts with thinwalled sections such as those encountered in the mobile electronics industry. Features: Flame Retardant; Good Dimensional Stability; Good Impact Resistance; Good Surface Finish; Halogen Free; High Flow; High Stiffness; High Strength; Low Moisture Absorption; Low Warpage; Paintable; PlatableUses: Cell Phones; Electrical Parts; Electrical/Electronic Applications; Thin-walled PartsInjection Molding Notes:

Kalix® compounds are shipped in moisture-resistant packages at moisture levels according to specifications. Sealed, undamaged bags should be preferably stored in a dry room at a maximum temperature of 50°C (122°F) and should be protected from possible damage. If only a portion of a package is used, the remaining material should be transferred into a sealable container. It is recommended that Kalix® resins be dried prior to molding. Additional Properties: Flexural Strain at Break - ISO 178 2.2 %; Tensile Modulus - ISO 527-2 19700 MPa; Tensile Strain at Break - ISO 527-2 1.7 %; Tensile Strength - ISO 527-2 183 MPaInformation provided by Solvay Specialty Polymers.

Order this product through the following link: http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Kalix-5950-HFFR-Polyamide-High-Performance-HPPA-50-Glass-Fiber.php

Physical Properties	Metric	English	Comments
Density	1.68 g/cc	0.0607 lb/in³	ISO 1183
Filler Content	50 %	50 %	Glass Fiber
Water Absorption	0.11 %	0.11 %	ISO 62
Water Albert Pilon	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.00060 cm/cm	0.00060 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.0018 cm/cm	0.0018 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	245 MPa	35500 psi	ISO 527-2
Elongation at Break	1.8 %	1.8 %	ISO 527-2
Tensile Modulus	20.0 GPa	2900 ksi	ISO 527-2
Flexural Strength	350 MPa	50800 psi	ISO 178
Flexural Modulus	19.0 GPa	2760 ksi	ISO 178
Izod Impact, Notched (ISO)	15.0 kJ/m²	7.14 ft-lb/in²	Type 1, Notch A; ISO 180



Mechanical Properties	Metric SULU KJ/mÅ ²	English ZSS (I-lb/inŲ	Comments ISO 180
Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	255 °C	491 °F	HDT B; Unannealed; ISO 75-2/B
Deflection Temperature at 1.8 MPa (264 psi)	247 °C	477 °F	Unannealed; ISO 75-2/A
Glass Transition Temp, Tg	40.0 °C	104 °F	DSC
Flowershillian III 04	V-0	V-0	
Flammability, UL94	@Thickness 0.400 mm	@Thickness 0.0157 in	
	5VA	5VA	
	@Thickness 1.50 mm	@Thickness 0.0591 in	

Electrical Properties	Metric	English	Comments
Dielectric Constant	4.48	4.48	ASTM D2520
	@Frequency 2.40e+9 Hz	@Frequency 2.40e+9 Hz	
Dissipation Factor	0.011	0.011	
	@Frequency 2.40e+9 Hz	@Frequency 2.40e+9 Hz	Method B; ASTM D2520

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	270 °C	518 °F	
Front Barrel Temperature	300 °C	572 °F	
Melt Temperature	280 - 285 °C	536 - 545 °F	
Mold Temperature	115 - 130 °C	239 - 266 °F	
	80.0 °C	176 °F	
Drying Temperature	@Time 14400 - 43200 sec	@Time 4.00 - 12.0 hour	
Moisture Content	<= 0.070 %	<= 0.070 %	

Descriptive Properties	Value	Comments		
Availability	Africa & Middle East	Africa & Middle East		
	Asia Pacific			



Descriptive Properties	Value Value	Comments
	Latin America	
	North America	
Color	Black; White	
Form	Pellets	
Part Marking Code	>PAX6/MXD6-GF50<	ISO 11469
Processing Technique	Injection Molding	
RoHS Compliance	RoHS Compliant	

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