Nilit FRIANYL B63 GV30 Nylon 6 for injection molding, 30% glass fiber reinforced

Categories: Polymer; Thermoplastic; Nylon; Nylon 6; Nylon 6, 30% Glass Fiber Filled

Material Notes: Nylon 6 for injection molding.

Information provided by Frisetta Polymer, which merged into Nilit Plastics

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	1.35 g/cc	0.0488 lb/in³	ISO 1183
Water Absorption	1.5 - 2.4 %	1.5 - 2.4 %	ISO 62
Water Absorption at Saturation	6.0 - 7.0 %	6.0 - 7.0 %	ISO 62
Viscosity Measurement	145	145	Viscosity index; ISO 307
Linear Mold Shrinkage	0.0060 - 0.013 cm/cm	0.0060 - 0.013 in/in	FRISETTA Test Method

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	175 MPa	25400 psi	ISO 2039-1
Tensile Strength at Break	170 MPa	24700 psi	ISO 527
Elongation at Break	4.0 %	4.0 %	ISO 527
Tensile Modulus	9.00 GPa	1310 ksi	ISO 527
Flexural Strength	220 MPa	31900 psi	ISO 178
Flexural Modulus	7.20 GPa	1040 ksi	ISO 178
Charpy Impact Unnotched	5.50 J/cm²	26.2 ft-lb/in²	DIN 53453
	NB	NB	ISO 179/1eU
	5.00 J/cm² @Temperature -40.0 °C	23.8 ft-lb/in² @Temperature -40.0 °F	DIN 53453
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	1.50 J/cm²	7.14 ft-lb/in²	ISO 179/1eA
	1.50 J/cm²	7.14 ft-lb/in²	DIN 53453

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 93
Dissipation Factor	0.020 @Frequency 1e+6 Hz	0.020 @Frequency 1e+6 Hz	IEC 250
Comparative Tracking Index	575 V	575 V	CTI 100; IEC 112

Thermal Properties	Metric	English	Comments
Melting Point	221 °C	430 °F	ISO 3146 DSC
Maximum Service Temperature, Air	110 °C	230 °F	Continuous; FRISETTA Test Method

Deflection Temperature at 0.46 MPa (66 psi)	220 °C	428 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	210 °C	410 °F	ISO 75