Nilit FRIANYL B63 KV30 Nylon 6 for injection molding, 30% glass ball reinforced

Categories: Polymer; Thermoplastic; Nylon; Nylon 6

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	1.34 g/cc	0.0484 lb/in³	ISO 1183
Water Absorption	1.5 - 2.5 %	1.5 - 2.5 %	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	0.0080 - 0.017 cm/cm	0.0080 - 0.017 in/in	FRISETTA Test Method

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	165 MPa	23900 psi	ISO 2039-1
Tensile Strength at Break	80.0 MPa	11600 psi	ISO 527
Elongation at Break	14 %	14 %	ISO 527
Tensile Modulus	4.00 GPa	580 ksi	ISO 527
Flexural Strength	110 MPa	16000 psi	ISO 178
Flexural Modulus	3.80 GPa	551 ksi	ISO 178
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
	NB	NB	DIN 53453
	4.00 J/cm² @Temperature -40.0 °C	19.0 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	0.700 J/cm²	3.33 ft-lb/in²	DIN 53453
	0.800 J/cm²	3.81 ft-lb/in²	ISO 179/1eA
	0.500 J/cm² @Temperature -40.0 °C	2.38 ft-lb/in² @Temperature -40.0 °F	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	550 V	550 V	CTI 100; IEC 112

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

Maximum Service Temperature, Air			
Deflection Temperature at 0.46 MPa (66 psi)	200 °C	392 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	180 °C	356 °F	ISO 75