

Celanese Nilit FRIANYL B63 V2 Nylon 6.6 for injection molding

Categories: [Polymer](#); [Thermoplastic](#); [Nylon \(Polyamide PA\)](#); [Nylon 66 \(PA66\)](#); [Nylon 66, Unreinforced](#); [Flame Retardant](#)

Material Notes: Nylon 6.6 for injection molding, flame retardant.

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	1.12 g/cc	0.0405 lb/in ³	ISO 1183
Water Absorption	2.0 - 3.0 %	2.0 - 3.0 %	ISO 62
Water Absorption at Saturation	7.0 - 8.0 %	7.0 - 8.0 %	ISO 62
Viscosity Measurement	145	145	Viscosity index; ISO 307
Linear Mold Shrinkage	0.012 - 0.025 cm/cm	0.012 - 0.025 in/in	FRISSETTA Test Method

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	135 MPa	19600 psi	ISO 2039-1
Tensile Strength at Break	80.0 MPa	11600 psi	ISO 527
Elongation at Break	25 %	25 %	ISO 527
Tensile Modulus	2.60 GPa	377 ksi	ISO 527
Flexural Strength	85.0 MPa	12300 psi	ISO 178
Flexural Modulus	2.30 GPa	334 ksi	ISO 178
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
	NB	NB	DIN 53453
	NB	NB	ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	NB	NB	DIN 53453
Charpy Impact, Notched	0.600 J/cm ²	2.86 ft-lb/in ²	ISO 179/1eA
	0.600 J/cm ²	2.86 ft-lb/in ²	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	0.020	IEC 250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Comparative Tracking Index	600 V	600 V	CTI 100; IEC 112
	600 V	600 V	CTI-M 100; IEC 112

Thermal Properties	Metric	English	Comments
Melting Point	221 °C	430 °F	ISO 3146 DSC
Maximum Service Temperature, Air	125 °C	257 °F	Continuous; FRISSETTA Test Method
Deflection Temperature at 0.46 MPa (66 psi)	160 °C	320 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	65.0 °C	149 °F	ISO 75
Flammability, UL94	V-2	V-2	

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.