Evonik Degussa Vestamid® L1833 AG 30% Glass Filled Nylon 12

Categories:	Polymer; Thermoplastic; Filled/Reinforced Thermoplastic; Nylon; Nylon 12; Nylon 12, 30% Glass Fiber Filled
Material Notes:	**Description:** 23% chopped strands, medium-viscosity, heat-stabilized, with processing aid **Applications:** Quick connectors for fuel lines Information provided by degussa.
Key Words:	PA12,MHR,16-050,GF23
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	1.17 g/cc	0.0423 lb/in³	ISO 1183
Moisture Absorption at Equilibrium	0.600 % @Thickness 1.00 mm, Temperature 23.0 °C	0.600 % @Thickness 0.0394 in, Temperature 73.4 °F	50% R.H.; ISO 62
Water Absorption at Saturation	1.20 % @Thickness 1.00 mm	1.20 % @Thickness 0.0394 in	ISO 62
Linear Mold Shrinkage	0.00100 cm/cm	0.00100 in/in	127x12.7x3.2 mm (processing cond. acc. To ISO 1874-2)
Linear Mold Shrinkage, Transverse	0.0110 cm/cm	0.0110 in/in	127x12.7x3.2 mm (processing cond. acc. To ISO 1874-2)

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	105 MPa	15200 psi	ISO 527-1/2
Elongation at Break	6.00 %	6.00 %	ISO 527-1/2
Tensile Modulus	5.00 GPa	725 ksi	ISO 527-1/2
Charpy Impact Unnotched	9.00 J/cm² @Temperature 23.0 °C	42.8 ft-lb/in² @Temperature 73.4 °F	ISO 179/1eU
	9.50 J/cm² @Temperature -30.0 °C	45.2 ft-lb/in² @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	1.60 J/cm² @Temperature -30.0 °C	7.61 ft-lb/in² @Temperature -22.0 °F	ISO 179/1eA
	2.50 J/cm² @Temperature 23.0 °C	11.9 ft-lb/in² @Temperature 73.4 °F	ISO 179/1eA

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Dielectric Constant	3.40 @Frequency 1e+6 Hz	3.40 @Frequency 1e+6 Hz	IEC 60250
	4.10 @Frequency 100 Hz	4.10 @Frequency 100 Hz	IEC 60250
Dielectric Strength	41.0 kV/mm	1040 kV/in	K20/P50; IEC 60243-1
Dissipation Factor	0.0260 @Frequency 1e+6 Hz	0.0260 @Frequency 1e+6 Hz	IEC 60250
	0.0370 @Frequency 100 Hz	0.0370 @Frequency 100 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	Test Solution A, 100 drops; IEC 60112
	>= 600 V	>= 600 V	Test Solution A, 50 drops; IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear	70.0 µm/m-°C @Temperature 23.0 - 55.0 °C	38.9 µin/in-°F @Temperature 73.4 - 131 °F	45x15x10 mm; ISO 11359
Melting Point	178 °C	352 °F	Peak Temperature; ISO 3146, ISO 11357
Deflection Temperature at 0.46 MPa (66 psi)	175 °C	347 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	160 °C	320 °F	ISO 75
Vicat Softening Point	175 °C	347 °F	10N; ISO 306
	175 °C	347 °F	50N; ISO 306
Flammability, UL94	HB @Thickness 1.60 mm	HB @Thickness 0.0630 in	
	V-2 @Thickness 3.20 mm	V-2 @Thickness 0.126 in	

Descriptive Properties			
Electrolytic Corrosion		A1 Step	IEC 60426