

EMS-Grivory Grivory® BG-50 HM PA6-GF50

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , 50% Glass Fiber Filled

Material Notes:

Product description: Grilon BG-50 HM is a heat stabilized, normal viscosity, and adhesion modified PA6 injection molding grade with 50% glass fibers. Grilon BG-50 HM has the following important properties: Excellent adhesion with thermoplastic elastomers Very high stiffness Good impact strength Application examples are automotive plugs and seals, counter wheel sensors, housings with integrated switch membranes, housings (hard soft combinations), grip handles, and plug housings. Information provided by EMS Grivory

Order this product through the following link:

http://www.lookpolymers.com/polymer_EMS-Grivory-Grivory-BG-50-HM-PA6-GF50.php

Physical Properties	Metric	English	Comments
Density	1.49 g/cc	0.0538 lb/in ³	ISO 1183
Water Absorption	3.5 %	3.5 %	ISO 62
Moisture Absorption	1.00 %	1.00 %	ISO 62
Linear Mold Shrinkage, Flow	0.0010 cm/cm	0.0010 in/in	ISO 294-4, 2577
Linear Mold Shrinkage, Transverse	0.0020 cm/cm	0.0020 in/in	ISO 294-4, 2577

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	140 MPa	20300 psi	conditioned; ISO 2039-1
	210 MPa	30500 psi	dry; ISO 2039-1
Tensile Strength at Break	100 MPa	14500 psi	conditioned; ISO 527-1/-2
	175 MPa	25400 psi	dry; ISO 527-1/-2
Elongation at Break	3.0 %	3.0 %	dry; ISO 527-1/-2
	5.0 %	5.0 %	conditioned; ISO 527-1/-2
Tensile Modulus	10.0 GPa	1450 ksi	conditioned; ISO 527-1/-2
	14.0 GPa	2030 ksi	dry; ISO 527-1/-2
Charpy Impact Unnotched	4.00 J/cm ²	19.0 ft-lb/in ²	dry; ISO 179/1eU
	4.50 J/cm ²	21.4 ft-lb/in ²	conditioned; ISO 179/1eU
	2.50 J/cm ²	11.9 ft-lb/in ²	conditioned; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	
	4.00 J/cm ²	19.0 ft-lb/in ²	dry; ISO 179/1eU

Mechanical Properties	@Temperature 30.0 °C Metric	@Temperature 86.0 °F English	Comments
Charpy Impact, Notched	1.20 J/cm ²	5.71 ft-lb/in ²	dry; ISO 179/1eA
	1.60 J/cm ²	7.61 ft-lb/in ²	conditioned; ISO 179/1eA
	1.00 J/cm ²	4.76 ft-lb/in ²	dry; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	
Charpy Impact, Notched	1.00 J/cm ²	4.76 ft-lb/in ²	conditioned; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	20.0 µm/m-°C	11.1 µin/in-°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	120 µm/m-°C	66.7 µin/in-°F	ISO 11359-1/-2
Melting Point	222 °C	432 °F	10°C/min; ISO 11357-1/-3
Maximum Service Temperature, Air	80.0 - 110 °C	176 - 230 °F	long term; EMS
	160 °C	320 °F	short term; EMS
Deflection Temperature at 1.8 MPa (264 psi)	200 °C	392 °F	ISO 75-1/-2
Deflection Temperature at 8.0 MPa	140 °C	284 °F	ISO 75-1/-2
Flammability, UL94	HB	HB	IEC 60695-11-10

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	conditioned; IEC 60093
	1.00e+14 ohm-cm	1.00e+14 ohm-cm	dry; IEC 60093
Surface Resistance	1.00e+12 ohm	1.00e+12 ohm	IEC 60093
Dielectric Strength	38.0 kV/mm	965 kV/in	conditioned; IEC 60243-1
	40.0 kV/mm	1020 kV/in	dry; IEC 60243-1
Comparative Tracking Index	600 V	600 V	conditioned; IEC 60112

Descriptive Properties	Value	Comments
Automotive	Air intake systems	
	Interior	
Electricals & Electronics	Electrical appliances	

Descriptive Properties	Value	Comments
Form	Granules	
Processing	Injection Molding	
Special Characteristics	High impact or impact modified	

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