

## EMS-Grivory Grivory® GVS-5H nat PA\*-GF50

Category : Polymer , Thermoplastic , Nylon

### Material Notes:

Product description: Grivory GVS-5H natural is a 50% glass-fiber reinforced engineering thermoplastic material based on a combination of semicrystalline polyamide with partially aromatic copolyamide. Grivory GVS-5H natural is used for injection molding technical parts with good surface quality, exhibiting exceptional characteristics even after moisture absorption: high stiffness and strengthdimensional stability, low warpagegood chemical resistancegood surface finish Grivory GVS-5H natural is the economical alternative to die-cast alloys. It is suitable for production of technical parts in the application fields of: Electro / ElectronicsAutomotiveSafety technologyMechanical engineeringDomestic appliancesInformation provided by EMS Grivory

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_EMS-Grivory-Grivory-GVS-5H-nat-PA-GF50.php](http://www.lookpolymers.com/polymer_EMS-Grivory-Grivory-GVS-5H-nat-PA-GF50.php)

Physical Properties	Metric	English	Comments
Density	1.58 g/cc	0.0571 lb/in <sup>3</sup>	ISO 1183
Water Absorption	4.0 %	4.0 %	ISO 62
Moisture Absorption	1.40 %	1.40 %	ISO 62
Linear Mold Shrinkage, Flow	0.0010 cm/cm	0.0010 in/in	ISO 294-4, 2577
Linear Mold Shrinkage, Transverse	0.0050 cm/cm	0.0050 in/in	ISO 294-4, 2577

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	255 MPa	37000 psi	conditioned; ISO 2039-1
	280 MPa	40600 psi	dry; ISO 2039-1
Tensile Strength at Break	220 MPa	31900 psi	conditioned; ISO 527-1/-2
	250 MPa	36300 psi	dry; ISO 527-1/-2
Elongation at Break	2.5 %	2.5 %	dry; ISO 527-1/-2
	2.5 %	2.5 %	conditioned; ISO 527-1/-2
Tensile Modulus	16.0 GPa	2320 ksi	conditioned; ISO 527-1/-2
	17.0 GPa	2470 ksi	dry; ISO 527-1/-2
Charpy Impact Unnotched	8.00 J/cm <sup>2</sup>	38.1 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eU
	9.00 J/cm <sup>2</sup>	42.8 ft-lb/in <sup>2</sup>	dry; ISO 179/1eU
	6.00 J/cm <sup>2</sup>	28.6 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	

Mechanical Properties	Metric <sup>1</sup> /cm <sup>2</sup>	English <sup>1b</sup> /in <sup>2</sup>	Comments
	@Temperature 30.0 °C	@Temperature 86.0 °F	dry; ISO 179/1eU
Charpy Impact, Notched	1.50 J/cm <sup>2</sup>	7.14 ft-lb/in <sup>2</sup>	dry; ISO 179/1eA
	1.50 J/cm <sup>2</sup>	7.14 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eA
	1.50 J/cm <sup>2</sup>	7.14 ft-lb/in <sup>2</sup>	dry; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	
	1.50 J/cm <sup>2</sup>	7.14 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	15.0 µm/m-°C	8.33 µin/in-°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	70.0 µm/m-°C	38.9 µin/in-°F	ISO 11359-1/-2
Melting Point	260 °C	500 °F	10°C/min; ISO 11357-1/-3
Maximum Service Temperature, Air	100 - 120 °C	212 - 248 °F	long term; EMS
	220 °C	428 °F	short term; EMS
Deflection Temperature at 1.8 MPa (264 psi)	240 °C	464 °F	ISO 75-1/-2
Deflection Temperature at 8.0 MPa	185 °C	365 °F	ISO 75-1/-2
Flammability, UL94	HB	HB	IEC 60695-11-10

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	dry; IEC 60093
	1.00e+14 ohm-cm	1.00e+14 ohm-cm	conditioned; IEC 60093
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	IEC 60093
Dielectric Strength	33.0 kV/mm	838 kV/in	dry; IEC 60243-1
	33.0 kV/mm	838 kV/in	conditioned; IEC 60243-1
Comparative Tracking Index	600 V	600 V	conditioned; IEC 60112

Descriptive Properties	Value	Comments
Automotive	Air intake sytems	
	Automotive electr. and electronics, lighting	

Descriptive Properties	Value g and climate control	Comments
	Exterior	
	Interior	
	Powertrain and Chassis	
Electricals & Electronics	Electrical appliances	
	Electrical equipment	
	Energy distribution	
	Mobile phones and other portable devices	
Form	Granules	
Industry & Consumer goods	Housewares	
	Hydraulics & Pneumatics	
	Mechanical Engineering	
	Power transmission	
	Sanitary, water and gas supply	
	Sports & Leisure	
	Tools & Accessories	
Processing	Injection Molding	
Product Attributes	Partially aromatic Polyamide	

## Contact Songhan Plastic Technology Co.,Ltd.

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