

## EMS-Grivory Grivory® HT2V-3H LF PA\*-GF30

Category : Polymer , Thermoplastic , Nylon

### Material Notes:

Grivory TH2V-3H LF is a glass fiber reinforced (30%), PTFE modified engineering thermoplastic based on semi-crystalline partially aromatic copolyamide. Polymer designation acc. ISO: PA6T/66 Polymer designation acc. ASTM: PPA polyphthalamide. Grivory HT2V-3H LF is especially used in tribological applications. Grivory HT2V-3H LF exhibits a high hardness, good crystallinity and a high heat distory temperature also after moisture absorption. The PTFE modification reduces the sliding friction after a short initial phase. As each tribological system has its own properties (material combination, temperature, load), the suitability of the product has to be tested for each application under practical conditions .Information provided by EMS Grivory

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_EMS-Grivory-Grivory-HT2V-3H-LF-PA-GF30.php](http://www.lookpolymers.com/polymer_EMS-Grivory-Grivory-HT2V-3H-LF-PA-GF30.php)

Physical Properties	Metric	English	Comments
Density	1.47 g/cc	0.0531 lb/in <sup>3</sup>	ISO 1183
Water Absorption	4.5 %	4.5 %	ISO 62
Moisture Absorption	2.00 %	2.00 %	ISO 62
Linear Mold Shrinkage, Flow	0.0020 cm/cm	0.0020 in/in	ISO 294-4, 2577
Linear Mold Shrinkage, Transverse	0.0080 cm/cm	0.0080 in/in	ISO 294-4, 2577

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	260 MPa	37700 psi	conditioned; ISO 2039-1
	270 MPa	39200 psi	dry; ISO 2039-1
Tensile Strength at Break	160 MPa	23200 psi	conditioned; ISO 527-1/-2
	185 MPa	26800 psi	dry; ISO 527-1/-2
Elongation at Break	2.0 %	2.0 %	dry; ISO 527-1/-2
	2.0 %	2.0 %	conditioned; ISO 527-1/-2
Tensile Modulus	11.0 GPa	1600 ksi	conditioned; ISO 527-1/-2
	11.0 GPa	1600 ksi	dry; ISO 527-1/-2
Charpy Impact Unnotched	5.00 J/cm <sup>2</sup>	23.8 ft-lb/in <sup>2</sup>	dry; ISO 179/1eU
	5.00 J/cm <sup>2</sup>	23.8 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eU
	4.50 J/cm <sup>2</sup> @Temperature 30.0 °C	21.4 ft-lb/in <sup>2</sup> @Temperature 86.0 °F	dry; ISO 179/1eU

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	conditioned; ISO 179/1eU
Charpy Impact, Notched	0.700 J/cm <sup>2</sup>	3.33 ft-lb/in <sup>2</sup>	dry; ISO 179/1eA
	0.700 J/cm <sup>2</sup>	3.33 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eA
	0.600 J/cm <sup>2</sup>	2.86 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	
	0.700 J/cm <sup>2</sup>	3.33 ft-lb/in <sup>2</sup>	dry; 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	70.0 µm/m-°C	38.9 µin/in-°F	ISO 11359-1/-2
Melting Point	310 °C	590 °F	10°C/min; ISO 11357-1/-3
Maximum Service Temperature, Air	140 °C	284 °F	long term; EMS
	240 °C	464 °F	short term; EMS
Deflection Temperature at 1.8 MPa (264 psi)	280 °C	536 °F	ISO 75-1/-2
Deflection Temperature at 8.0 MPa	170 °C	338 °F	ISO 75-1/-2
Flammability, UL94	HB	HB	IEC 60695-11-10

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+12 ohm-cm	1.00e+12 ohm-cm	dry; IEC 60093
	1.00e+12 ohm-cm	1.00e+12 ohm-cm	conditioned; IEC 60093
Surface Resistance	1.00e+12 ohm	1.00e+12 ohm	IEC 60093
Dielectric Strength	37.0 kV/mm	940 kV/in	dry; IEC 60243-1
	37.0 kV/mm	940 kV/in	conditioned; IEC 60243-1
Comparative Tracking Index	575 V	575 V	conditioned; IEC 60112

Descriptive Properties	Value	Comments
Automotive	Air intake systems	
	Compressed air systems	

Descriptive Properties	Value systems	Comments
	Hydraulic systems	
	Interior	
	Powertrain and Chassis	
Electricals & Electronics	Electrical appliances	
Form	Granules	
Industry & Consumer goods	Housewares	
	Hydraulics & Pneumatics	
	Mechanical Engineering	
	Power transmission	
	Tools & Accessories	
Processing	Injection Molding	
Product Attributes	Co Polyamide	
	Hydrolysis resistant	
	Improved alcohol resistance	
	Improved friction & wear properties	
	Partially aromatic Polyamide	
Special Characteristics	Improved heat resistance	

## Contact Songhan Plastic Technology Co.,Ltd.

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