

## EMS-Grivory Grivory® HT1V-5 HY black 9205 PA6T/6I-GF50

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 50% Glass Fiber Filled

### Material Notes:

Product description: Grivory HT1V-5 HY black 9205 is a 50% glass-fiber reinforced engineering thermoplastic material based on a semi-crystalline, partially aromatic copolyamide. Grivory HT1V-5 HY black 9205 is especially suitable for injection molded parts in automotive applications being in long term contact with coolants (water/glycol mixtures). Polymer designation Acc. to ISO: PA 6T/6I. Acc. to ASTM: PPA, polyphthalamide The main distinguishing feature of Grivory HT, when compared to other polyamides, is its good performance values at high temperatures providing parts, which are stiffer, stronger and have better heat distortion stability and chemical resistance. Grivory HT is suitable for production of technical parts in the application fields of: ElectroElectronicsAutomotiveSafety technologyMechanical engineeringDomestic appliancesInformation provided by EMS Grivory

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_EMS-Grivory-Grivory-HT1V-5-HY-black-9205-PA6T6I-GF50.php](http://www.lookpolymers.com/polymer_EMS-Grivory-Grivory-HT1V-5-HY-black-9205-PA6T6I-GF50.php)

Physical Properties	Metric	English	Comments
Density	1.65 g/cc	0.0596 lb/in <sup>3</sup>	ISO 1183
Water Absorption	3.0 %	3.0 %	ISO 62
Moisture Absorption	1.30 %	1.30 %	ISO 62
Linear Mold Shrinkage, Flow	0.0010 cm/cm	0.0010 in/in	ISO 294-4, 2577
Linear Mold Shrinkage, Transverse	0.0060 cm/cm	0.0060 in/in	ISO 294-4, 2577

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	340 MPa	49300 psi	dry; ISO 2039-1
	340 MPa	49300 psi	conditioned; ISO 2039-1
Tensile Strength at Break	240 MPa	34800 psi	conditioned; ISO 527-1/-2
	250 MPa	36300 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	17.5 GPa	2540 ksi	conditioned; ISO 527-1/-2
	18.0 GPa	2610 ksi	dry; ISO 527-1/-2
Charpy Impact Unnotched	8.00 J/cm <sup>2</sup>	38.1 ft-lb/in <sup>2</sup>	dry; ISO 179/1eU
	8.00 J/cm <sup>2</sup>	38.1 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eU
	8.00 J/cm <sup>2</sup>	38.1 ft-lb/in <sup>2</sup>	dry; ISO 179/1eU

Mechanical Properties	@Temperature 30.0 °C Metric	@Temperature 86.0 °F English	Comments
	8.00 J/cm <sup>2</sup>	38.1 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	
Charpy Impact, Notched	1.10 J/cm <sup>2</sup>	5.23 ft-lb/in <sup>2</sup>	dry; ISO 179/1eA
	1.10 J/cm <sup>2</sup>	5.23 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eA
	1.00 J/cm <sup>2</sup>	4.76 ft-lb/in <sup>2</sup>	dry; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	
	1.00 J/cm <sup>2</sup>	4.76 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	40.0 µm/m-°C	22.2 µin/in-°F	ISO 11359-1/-2
Melting Point	325 °C	617 °F	10°C/min; ISO 11357-1/-3
Maximum Service Temperature, Air	150 °C	302 °F	long term; EMS
	250 °C	482 °F	short term; EMS
Deflection Temperature at 1.8 MPa (264 psi)	285 °C	545 °F	ISO 75-1/-2
Deflection Temperature at 8.0 MPa	210 °C	410 °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	dry; IEC 60093
	1.00e+13 ohm-cm	1.00e+13 ohm-cm	conditioned; IEC 60093
Surface Resistance	1.00e+12 ohm	1.00e+12 ohm	IEC 60093
Dielectric Strength	30.0 kV/mm	762 kV/in	dry; IEC 60243-1
	30.0 kV/mm	762 kV/in	conditioned; IEC 60243-1
Comparative Tracking Index	600 V	600 V	conditioned; IEC 60112

Descriptive Properties	Value	Comments
Automotive	Cooling and climate control	

Descriptive Properties	Exterior Value	Comments
	Interior	
	Powertrain and Chassis	
Form	Granules	
Industry & Consumer goods	Heating systems	
	Hydraulics & Pneumatics	
Processing	Injection Molding	
Product Attributes	Hydrolysis resistant	
Special Characteristics	Improved UV resistance (outdoor use)	

## Contact Songhan Plastic Technology Co.,Ltd.

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