

## EMS-Grivory Grivory® XE 4107 nat PA612-GF40

Category : Polymer , Thermoplastic , Nylon , Nylon 612 , Nylon 612, Glass Fiber Filler

### Material Notes:

Product description: Grilamid XE 4107 natural is a 40% glass fiber reinforced, heat stabilized polyamide 612 injection molding grade. The main features of Grilamid XE 4107 are: low water absorption, good heat and chemical resistance, high hydrolysis resistance, easy processing. Grilamid XE 4107 natural is particularly suitable for the manufacturing of technical injection molded parts in the application fields of: Automotive, Electrical & Electronic goods, Mechanical engineering, Sports & leisure goods, Domestic appliances. Information provided by EMS Grivory

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_EMS-Grivory-Grivory-XE-4107-nat-PA612-GF40.php](http://www.lookpolymers.com/polymer_EMS-Grivory-Grivory-XE-4107-nat-PA612-GF40.php)

Physical Properties	Metric	English	Comments
Density	1.40 g/cc	0.0506 lb/in <sup>3</sup>	ISO 1183
Water Absorption	1.8 %	1.8 %	ISO 62
Moisture Absorption	0.800 %	0.800 %	ISO 62
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	ISO 294-4, 2577
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	ISO 294-4, 2577

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	155 MPa	22500 psi	conditioned; ISO 2039-1
	200 MPa	29000 psi	dry; ISO 2039-1
Tensile Strength at Break	135 MPa	19600 psi	conditioned; ISO 527-1/-2
	175 MPa	25400 psi	dry; ISO 527-1/-2
Elongation at Break	4.0 %	4.0 %	dry; ISO 527-1/-2
	5.5 %	5.5 %	conditioned; ISO 527-1/-2
Tensile Modulus	9.50 GPa	1380 ksi	conditioned; ISO 527-1/-2
	12.5 GPa	1810 ksi	dry; ISO 527-1/-2
Charpy Impact Unnotched	8.50 J/cm <sup>2</sup>	40.4 ft-lb/in <sup>2</sup>	dry; ISO 179/1eU
	8.50 J/cm <sup>2</sup>	40.4 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eU
	8.50 J/cm <sup>2</sup>	40.4 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	
	9.00 J/cm <sup>2</sup>	42.8 ft-lb/in <sup>2</sup>	

Mechanical Properties	Metric @ Temperature 30.0 °C	English @ Temperature 86.0 °F	dry; ISO 179/1eU Comments
Charpy Impact, Notched	1.60 J/cm <sup>2</sup>	7.61 ft-lb/in <sup>2</sup>	dry; ISO 179/1eA
	1.70 J/cm <sup>2</sup>	8.09 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eA
	1.10 J/cm <sup>2</sup>	5.23 ft-lb/in <sup>2</sup>	dry; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	
	1.10 J/cm <sup>2</sup>	5.23 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	20.0 µm/m-°C	11.1 µin/in-°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	100 µm/m-°C	55.6 µin/in-°F	ISO 11359-1/-2
Melting Point	215 °C	419 °F	10°C/min; ISO 11357-1/-3
Maximum Service Temperature, Air	90.0 - 120 °C	194 - 248 °F	long term; EMS
	180 °C	356 °F	short term; EMS
Deflection Temperature at 1.8 MPa (264 psi)	185 °C	365 °F	ISO 75-1/-2
Deflection Temperature at 8.0 MPa	115 °C	239 °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+11 ohm	1.00e+11 ohm	IEC 60093
Dielectric Strength	36.0 kV/mm	914 kV/in	dry; IEC 60243-1
	36.0 kV/mm	914 kV/in	conditioned; IEC 60243-1
Comparative Tracking Index	600 V	600 V	conditioned; IEC 60112

Descriptive Properties	Value	Comments
Automotive	Air intake systems	
	Automotive electr. and electronics, lighting	
	Compressed air systems	

Descriptive Properties	Value Cooling and climate control	Comments
	Exterior	
	Fuel systems	
	Hydraulic systems	
	Interior	
	Powertrain and Chassis	
Electricals & Electronics	Connectors	
	Electrical appliances	
	Electrical equipment	
	Lighting	
	Mobile phones and other portable devices	
Form	Granules	
Industry & Consumer goods	Heating systems	
	Housewares	
	Hydraulics & Pneumatics	
	Mechanical Engineering	
	Power transmission	
	Sports & Leisure	
	Tools & Accessories	
Processing	Injection Molding	
Product Attributes	Hydrolysis resistant	
	Improved alcohol resistance	
Special Characteristics	Improved heat resistance	
	Improved UV resistance (outdoor use)	
	Light stabilized or stable to light	

**Contact Songhan Plastic Technology Co.,Ltd.**

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