

## EMS-Grivory Grivory® L 20 LM PA12

Category : Polymer , Thermoplastic , Nylon , Nylon 12

### Material Notes:

**Product Description:** Grilamid L 20 LM is a medium viscosity Polyamide 12 (PA12) extrusion grade. Grilamid L 20 LM is UV and heat stabilized and has been modified with a nucleation agent which results in a low post crystallization and low post shrinkage. The special features of this product are: UV and heat stabilized High abrasion resistance Very good chemical resistance Very good resistance to oil High surface quality Good dimensional stability High processing speeds Low density, low weight Application examples: Grilamid L 20 LM is especially suitable for high speed extrusion of thin walled sheathings for applications such as copper wire insulation or secondary tight coating of optical fibers providing resistance against attack from termites and ants. Information provided by EMS Grivory

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_EMS-Grivory-Grivory-L-20-LM-PA12.php](http://www.lookpolymers.com/polymer_EMS-Grivory-Grivory-L-20-LM-PA12.php)

Physical Properties	Metric	English	Comments
Density	1.01 g/cc	0.0365 lb/in <sup>3</sup>	ISO 1183
Water Absorption	1.5 %	1.5 %	ISO 62
Moisture Absorption	0.700 %	0.700 %	ISO 62
Linear Mold Shrinkage, Flow	0.0080 cm/cm	0.0080 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
Hardness, Shore D	70	70	conditioned, 15s; ISO 868
Tensile Strength at Break	50.0 MPa	7250 psi	conditioned; ISO 527-1/-2
	60.0 MPa	8700 psi	dry; ISO 527-1/-2
Tensile Strength, Yield	40.0 MPa	5800 psi	dry; ISO 527-1/-2
	45.0 MPa	6530 psi	dry; ISO 527-1/-2
Elongation at Break	>= 50 %	>= 50 %	conditioned; ISO 527-1/-2
	<= 50 %	<= 50 %	dry; ISO 527-1/-2
Elongation at Yield	10 %	10 %	dry; ISO 527-1/-2
	12 %	12 %	conditioned; ISO 527-1/-2
Tensile Modulus	1.10 GPa	160 ksi	conditioned; ISO 527-1/-2
	1.40 GPa	203 ksi	dry; ISO 527-1/-2
Charpy Impact Unnotched	NB	NB	dry; ISO 179/1eU

Mechanical Properties	Metric	English	Comments
	NB	NB	conditioned; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	dry; ISO 179/1eU
	NB	NB	conditioned; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	conditioned; ISO 179/1eU
Charpy Impact, Notched	0.400 J/cm <sup>2</sup>	1.90 ft-lb/in <sup>2</sup>	dry; ISO 179/1eA
	0.400 J/cm <sup>2</sup>	1.90 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eA
	0.300 J/cm <sup>2</sup>	1.43 ft-lb/in <sup>2</sup>	dry; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	dry; ISO 179/1eU
	0.300 J/cm <sup>2</sup>	1.43 ft-lb/in <sup>2</sup>	conditioned; ISO 179/1eU
	@Temperature 30.0 °C	@Temperature 86.0 °F	conditioned; ISO 179/1eU

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	120 µm/m-°C	66.7 µin/in-°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	140 µm/m-°C	77.8 µin/in-°F	ISO 11359-1/-2
Melting Point	178 °C	352 °F	10°C/min; ISO 11357-1/-3
Maximum Service Temperature, Air	90.0 - 110 °C	194 - 230 °F	long term; EMS
	150 °C	302 °F	short term; EMS
Deflection Temperature at 0.46 MPa (66 psi)	125 °C	257 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	50.0 °C	122 °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
Surface Resistance	1.00e+12 ohm	1.00e+12 ohm	IEC 60093
Dielectric Strength	32.0 kV/mm	813 kV/in	conditioned; IEC 60243-1
Comparative Tracking Index	600 V	600 V	conditioned; IEC 60112

Descriptive Properties	Value	Comments
Electricals & Electronics	Cables & Tubes	

Descriptive Properties Form	Value Granules	Comments
Industry & Consumer goods	Hydraulics & Pneumatics	
Processing	Other Extrusion	
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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