TECHNICAL DATASHEET

Grilamid L XE 16175 (LVL-5H) black 9288

PA12-GF50

EMS-GRIVORY
Material Database

Physical
Low moisture absorption, High dimensional stability, Low density

Chemical
Excellent weatherability

Mechanical
High stiffness

Others
Good surface finish

Processing
Injection molding

Delivery form
Granules

Product Attributes
Long fiber reinforced

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Product Information

Product-nomenclature: ISO 16396-PA 12,GF50,M1G,C12-140N

Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	- / 13500	MPa	ISO 527
Stress at break	- / 195	MPa	ISO 527
Strain at break	- / 2.3	%	ISO 527
Charpy impact strength, +23°C	- / 90	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	- / 90	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	- / 35	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	- / 35	kJ/m²	ISO 179/1eA

Thermal Properties	dry/cond	Unit	Standard
Melting temperature, 10°C/min	178 / -	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	170 / -	°C	ISO 75-1/-2
Temp. of deflection under load, 8.00 MPa	160 / -	°C	ISO 75-1/-2

General Properties	dry/cond	Unit	Standard
Density	1470 / -	kg/m³	ISO 1183
Burning behav. at thickness h	HB / -	class	IEC 60695-11-10
Thickness tested	0.8 / -	mm	
Water absorption	0.8 / -	%	Sim. to ISO 62
Humidity absorption	0.4 / -	%	Sim. to ISO 62
Molding shrinkage, parallel	0.2 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.4 / -	%	ISO 294-4, 2577

Processing Injection Molding	Value	Unit	Standard
Hopper zone	≤80	°C	

Grilamid L XE 16175 (LVL-5H) black 9288

Processing Injection Molding	Value	Unit	Standard
Feeding zone	≤260	°C	
Compression zone	≤275	°C	
Metering zone	≤280	°C	
Nozzle (IM)	≤275	°C	
Melt	260 - 280	°C	
Mold surface temperature	80 - 120	°C	
Injection speed	Low - Medium	-	
Pressure	300 - 800	bar	
Dynamic pressure (hydraulic)	50 - 80	bar	
Circumferencial screw speed	0.07 - 0.3	m/s	

EMS-CHEMIE AG
Business Unit EMS-GRIVORY

Homepage: EMS-GRIVORY
eMail: welcome@emsgrivory.com

The values are intended to serve as an aid in preselecting materials and for an overview of the EMS-GRIVORY product range. The information contained in this publication is based on our present knowledge and experience. The given figures and data are guidance values and do not represent binding material specifications. No warranties of any kind, either express or implied, including warranties of merchantability or fitness for a particular purpose, are given regarding products, design, data and information. The customer is not released from his obligation to investigate the products fitness and the suitability for the intended application, compliance with legal requirements and intellectual property rights. We reserve the right to change the information at any time and without prior notice. The information in this publication is not to be considered a contractual obligation and any liability whatsoever is expressly declined. For further questions about our products please contact our experts.

Created: Aug 25, 2026