TECHNICAL DATASHEET

Grilamid L XE 11367 natural

PA12-I

EMS-GRIVORY
Material Database

Physical
Low density

Chemical
Good chemical resistance

Mechanical
Good cold impact resistance, High flexural fatigue resistance

Others
Good surface finish

Processing
Injection molding

Delivery form
Granules

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

Product Information

Product-nomenclature: ISO 16396-PA12-I,GHL1,C18-007

Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	800 / 540	MPa	ISO 527
Stress at 50% strain	25 / 25	MPa	ISO 527
Strain at break	>50 / >50	%	ISO 527
Charpy impact strength, +23°C	N / N	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	N / N	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	80 / 80	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	100 / 100	kJ/m²	ISO 179/1eA
Shore A hardness (15s)	63 / 60	-	ISO 868

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	45 / -	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	65 / -	°C	ISO 75-1/-2
Max. usage temperature (long term)	80 - 100	°C	ISO 2578
Max. usage temperature (short term)	150	°C	EMS

Electrical Properties	dry/cond	Unit	Standard
Electric strength	40 / 40	kV/mm	IEC 60243-1
Comparative tracking index	- / 600		IEC 60112
Volume resistivity	1E11 / 1E10	Ohm*m	IEC 62631-3-1
Surface resistivity	- / 1E13	Ohm	IEC 62631-3-2

General Properties	dry/cond	Unit	Standard
Density	960 / -	kg/m³	ISO 1183

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General Properties	dry/cond	Unit	Standard
Burning behav. at thickness h	HB / -	class	IEC 60695-11-10
Thickness tested	0.8 / -	mm	
Water absorption	1.1 / -	%	Sim. to ISO 62
Humidity absorption	0.5 / -	%	Sim. to ISO 62
Molding shrinkage, parallel	0.5 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	1.4 / -	%	ISO 294-4, 2577

Processing Injection Molding	Value	Unit	Standard
Hopper zone	≤40	°C	
Feeding zone	240 - 260	°C	
Compression zone	245 - 265	°C	
Metering zone	250 - 270	°C	
Nozzle (IM)	250 - 270	°C	
Melt	250 - 270	°C	
Mold surface temperature	40 - 60	°C	
Injection speed	Low - Medium	-	
Pressure	300 - 800	bar	
Dynamic pressure (hydraulic)	50 - 150	bar	
Circumferencial screw speed	0.08 - 0.24	m/s	

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