TECHNICAL DATASHEET

Grilamid LV-3H natural

PA12-GF30

EMS-GRIVORY
Material Database

Physical
Low moisture absorption, High dimensional stability, Low density, Low melting temperature

Chemical
Good chemical resistance, Highly resistant to hydrolysis

Mechanical
Stiff, Tough, Good cold impact resistance

Others
Unlimited colourability

Processing
Injection molding

Delivery form
Granules

Special Characteristics
Light stabilized or stable to light

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

Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	- / 6000	MPa	ISO 527
Stress at break	- / 105	MPa	ISO 527
Strain at break	- / 8	%	ISO 527
Charpy impact strength, +23°C	- / 80	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	- / 80	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	- / 20	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	- / 15	kJ/m²	ISO 179/1eA
Shore D hardness	77 / -		ISO 7619-1

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	160 / -	°C	ISO 75-1/-2
Temp. of deflection under load, 8.00 MPa	90 / -	°C	ISO 75-1/-2
Max. usage temperature (long term)	90 - 120	°C	ISO 2578
Max. usage temperature (short term)	≥150	°C	EMS

Electrical Properties	dry/cond	Unit	Standard
Electric strength	- / 35	kV/mm	IEC 60243-1
Comparative tracking index	- / 600		IEC 60112
Volume resistivity	- / 1E11	Ohm*m	IEC 62631-3-1
Surface resistivity	- / 1E12	Ohm	IEC 62631-3-2

General Properties	dry/cond	Unit	Standard
Density	1220 / -	kg/m³	ISO 1183
Burning behav. at thickness h	HB / -	class	IEC 60695-11-10
Thickness tested	0.8 / -	mm	

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General Properties	dry/cond	Unit	Standard
Water absorption	1.1 / -	%	Sim. to ISO 62
Humidity absorption	0.6 / -	%	Sim. to ISO 62
Molding shrinkage, parallel	0.1 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.75 / -	%	ISO 294-4, 2577

Processing Injection Molding	Value	Unit	Standard
Hopper zone	70 - 90	°C	
Feeding zone	240 - 260	°C	
Compression zone	250 - 270	°C	
Metering zone	260 - 280	°C	
Nozzle (IM)	260 - 280	°C	
Melt	260 - 280	°C	
Mold surface temperature	70 - 90	°C	
Injection speed	Medium - High	-	
Pressure	300 - 800	bar	
Dynamic pressure (hydraulic)	50 - 100	bar	
Circumferencial screw speed	0.1 - 0.3	m/s	

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