TECHNICAL DATASHEET

Grilamid LV-15H natural

PA12-GF15

EMS-GRIVORY
Material Database

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

Chemical
Excellent chemical resistance, Highly resistant to hydrolysis, Stress cracking resistant

Mechanical
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

Product Information

Product-nomenclature: ISO16396-PA12,GF15,M1HR,C18-030

Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	3700 / 3000	MPa	ISO 527
Stress at break	80 / 70	MPa	ISO 527
Strain at break	8 / 10	%	ISO 527
Charpy impact strength, +23°C	75 / 75	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	75 / 75	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	15 / 15	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	10 / 10	kJ/m²	ISO 179/1eA
Shore D hardness	74 / -		ISO 7619-1
Ball indentation hardness	120 / 100	MPa	ISO 2039-1
Shore A hardness (15s)	- / 74	-	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	150 / -	°C	ISO 75-1/-2
Temp. of deflection under load, 8.00 MPa	80 / -	°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

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General Properties	dry/cond	Unit	Standard
Density	1120 / -	kg/m³	ISO 1183
Burning behav. at thickness h	HB / -	class	IEC 60695-11-10
Thickness tested	0.8 / -	mm	
Water absorption	1.3 / -	%	Sim. to ISO 62
Humidity absorption	0.8 / -	%	Sim. to ISO 62
Molding shrinkage, parallel	0.3 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7 / -	%	ISO 294-4, 2577

Processing Injection Molding	Value	Unit	Standard
Hopper zone	60 - 80	°C	
Feeding zone	240 - 260	°C	
Compression zone	260 - 270	°C	
Metering zone	260 - 280	°C	
Nozzle (IM)	260 - 280	°C	
Melt	240 - 290	°C	
Mold surface temperature	40 - 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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