TECHNICAL DATASHEET

Grilamid LV-3 X ESD black

PA12-GF30

EMS-GRIVORY
Material Database

Processing
Injection molding

Delivery form
Granules

Special Characteristics
Light stabilized or stable to light

Product Information

Product-nomenclature: ISO16396-PA12,GF30+C,M1HRZ,C18-080

Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	7800 / 7100	MPa	ISO 527
Stress at break	125 / 110	MPa	ISO 527
Strain at break	5.5 / 4.5	%	ISO 527
Charpy impact strength, +23°C	75 / 70	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	55 / 50	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	11 / 11	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	9 / 9	kJ/m²	ISO 179/1eA
Ball indentation hardness	145 / 135	MPa	ISO 2039-1

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	110 / -	°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	3 / 3	kV/mm	IEC 60243-1
Volume resistivity	- / 100	Ohm*m	IEC 62631-3-1

General Properties	dry/cond	Unit	Standard
Density	1300 / -	kg/m³	ISO 1183
Burning behav. at thickness h	HB / -	class	IEC 60695-11-10
Thickness tested	0.8 / -	mm	
Water absorption	1 / -	%	Sim. to ISO 62
Humidity absorption	0.5 / -	%	Sim. to ISO 62
Molding shrinkage, parallel	0.25 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	1 / -	%	ISO 294-4, 2577

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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 - 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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