TECHNICAL DATASHEET

Grilamid LV-3 ESD black

PA12-GF30

EMS-GRIVORY
Material Database

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,GF30+C,M1HRZ,C18-080

Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	7800 / 7000	MPa	ISO 527
Stress at break	125 / 110	MPa	ISO 527
Strain at break	5 / 7	%	ISO 527
Charpy impact strength, +23°C	85 / 80	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	70 / 65	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 A hardness (15s)	83 / 81	-	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	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

General Properties	dry/cond	Unit	Standard
Density	1280 / -	kg/m³	ISO 1183
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	0.6 / -	%	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	

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Processing Injection Molding	Value	Unit	Standard
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	70 - 90	°C	
Injection speed	Medium - High	-	
Pressure	300 - 800	bar	
Dynamic pressure (hydraulic)	5 - 15	bar	
Circumferencial screw speed	0.8 - 1.6	m/s	

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