TECHNICAL DATASHEET

Grilamid LCL-3 H anthracite

PA12-CF30

EMS-GRIVORY
Material Database

Physical
Low density

Mechanical
High stiffness, Good abrasion resistance

Processing
Injection molding

Delivery form
Granules

Special Characteristics
Light stabilized or stable to light

Product Attributes
Long fiber reinforced

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

Product Information

Product-nomenclature: SO 16396-PA 12,CF30,M1G,C12-190N

Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	22500 / 19000	MPa	ISO 527
Stress at break	315 / 250	MPa	ISO 527
Strain at break	1.6 / 1.7	%	ISO 527
Charpy impact strength, +23°C	55 / 65	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	55 / 65	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	16 / 16	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	20 / 20	kJ/m²	ISO 179/1eA
Ball indentation hardness	320 / 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	170 / -	°C	ISO 75-1/-2
Temp. of deflection under load, 8.00 MPa	160 / -	°C	ISO 75-1/-2
Max. usage temperature (long term)	100 - 120	°C	ISO 2578

Electrical Properties	dry/cond	Unit	Standard
Volume resistivity	- / 50	Ohm*m	IEC 62631-3-1
Surface resistivity	- / 50	Ohm	IEC 62631-3-2

General Properties	dry/cond	Unit	Standard
Density	1150 / -	kg/m³	ISO 1183
Burning behav. at thickness h	HB / -	class	IEC 60695-11-10
Thickness tested	0.8 / -	mm	
Water absorption	4.7 / -	%	Sim. to ISO 62
Humidity absorption	0.6 / -	%	Sim. to ISO 62

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General Properties	dry/cond	Unit	Standard
Molding shrinkage, normal	0.1 / -	%	ISO 294-4, 2577

Processing Injection Molding	Value	Unit	Standard
Hopper zone	60 - 80	°C	
Feeding zone	250 - 270	°C	
Compression zone	260 - 280	°C	
Metering zone	260 - 280	°C	
Nozzle (IM)	260 - 280	°C	
Melt	260 - 280	°C	
Mold surface temperature	80 - 120	°C	
Injection speed	Low - Medium	-	
Pressure	300 - 800	bar	
Dynamic pressure (hydraulic)	20 - 60	bar	
Circumferencial screw speed	0.07 - 0.17	m/s	

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