TECHNICAL DATASHEET

Grilamid LC-15H black

PA12-CF15

EMS-GRIVORY
Material Database

Physical
Low moisture absorption, Low density

Chemical
Good chemical resistance

Mechanical
High stiffness, Good abrasion resistance

Processing
Injection molding

Delivery form
Granules

Special Characteristics
Light stabilized or stable to light

Product Information

Product-nomenclature: ISO 16396-PA12,CF15,M1HR,C18-080

Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	9500 / 7500	MPa	ISO 527
Stress at break	110 / 100	MPa	ISO 527
Strain at break	4.5 / 5	%	ISO 527
Charpy impact strength, +23°C	- / 40	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	- / 40	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	- / 10	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	- / 5	kJ/m²	ISO 179/1eA
Shore D hardness	100 / -		ISO 7619-1
Ball indentation hardness	- / 100	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	100 / -	°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
Volume resistivity	- / 100	Ohm*m	IEC 62631-3-1

General Properties	dry/cond	Unit	Standard
Density	1070 / -	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	0.7 / -	%	Sim. to ISO 62

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General Properties	dry/cond	Unit	Standard
Molding shrinkage, parallel	0.2 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.5 / -	%	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 - 290	°C	
Melt	270 - 290	°C	
Mold surface temperature	60 - 100	°C	
Injection speed	Medium - High	-	
Pressure	300 - 800	bar	
Dynamic pressure (hydraulic)	50 - 100	bar	
Circumferencial screw speed	5 - 15	m/s	

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