TECHNICAL DATASHEET

Grilamid L XE 11454 black 9230

PA12-(CF+GB)25

EMS-GRIVORY
Material Database

Physical
Low density

Chemical
Good chemical resistance

Mechanical
High stiffness

Processing
Injection molding

Delivery form
Granules

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

Product Information

Product-nomenclature: ISO 16396-PA12, (CF15+GB10),M1HR, C18-100

Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	10000 / 8300	MPa	ISO 527
Stress at break	120 / 95	MPa	ISO 527
Strain at break	3 / 3	%	ISO 527
Charpy impact strength, +23°C	50 / 50	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	45 / 45	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	10 / 10	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	8 / 8	kJ/m²	ISO 179/1eA
Ball indentation hardness	135 / 120	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
Surface resistivity	- / 1	Ohm	IEC 62631-3-2

General Properties	dry/cond	Unit	Standard
Density	1020 / -	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	0.02 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.45 / -	%	ISO 294-4, 2577

Processing Injection Molding	Value	Unit	Standard
Hopper zone	≤40	°C	
Melt	240 - 280	°C	
Injection speed	Low - Medium	-	
Pressure	300 - 800	bar	
Dynamic pressure (hydraulic)	5 - 15	bar	
Circumferencial screw speed	0.8 - 1.7	m/s	

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