TECHNICAL DATASHEET

Grilamid LV-3A HX black 9288

PA12-GF30

EMS-GRIVORY
Material Database

Chemical
Resistant to hydrolysis

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,GF30,M1R,C22-060

Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	6700 / 6000	MPa	ISO 527
Stress at break	110 / 105	MPa	ISO 527
Strain at break	5 / 8	%	ISO 527
Charpy impact strength, +23°C	85 / 80	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	75 / 80	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	20 / 20	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	15 / 15	kJ/m²	ISO 179/1eA
Ball indentation hardness	125 / -	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	90 / -	°C	ISO 75-1/-2
Max. usage temperature (long term)	90	°C	ISO 2578
Max. usage temperature (short term)	150	°C	EMS

Electrical Properties	dry/cond	Unit	Standard
Electric strength	- / 35	kV/mm	IEC 60243-1
Comparative tracking index	- / 600		IEC 60112
Volume resistivity	- / 1E11	Ohm*m	IEC 62631-3-1
Surface resistivity	- / 1E12	Ohm	IEC 62631-3-2

General Properties	dry/cond	Unit	Standard
Density	1220 / -	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

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General Properties	dry/cond	Unit	Standard
Humidity absorption	0.6 / -	%	Sim. to ISO 62
Molding shrinkage, parallel	0.1 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.65 / -	%	ISO 294-4, 2577

Processing Injection Molding	Value	Unit	Standard
Hopper zone	60 - 80	°C	
Feeding zone	≤250	°C	
Compression zone	≤260	°C	
Metering zone	≤260	°C	
Nozzle (IM)	≤250	°C	
Melt	250 - 270	°C	
Mold surface temperature	≤80	°C	
Injection speed	Medium - High	-	
Pressure	300 - 800	bar	
Dynamic pressure (hydraulic)	50 - 100	bar	
Circumferencial screw speed	0.1 - 0.3	m/s	

EMS-CHEMIE AG
Business Unit EMS-GRIVORY

Homepage: EMS-GRIVORY
eMail: welcome@emsgrivory.com

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