TECHNICAL DATASHEET

Grilamid XE 3817 natural

PA12

EMS-GRIVORY
Material Database

Processing
Other extrusion

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: ISO 16396-PA12,,EHL,C18-020

Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	1600 / 1200	MPa	ISO 527
Yield stress	50 / 40	MPa	ISO 527
Yield strain	5 / 10	%	ISO 527
Nominal strain at break	>50 / >50	%	ISO 527
Charpy impact strength, +23°C	N / N	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	N / N	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	6 / 7	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	6 / 6	kJ/m²	ISO 179/1eA
Shore D hardness	75 / -		ISO 7619-1
Shore A hardness (15s)	75 / 70	-	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	50 / -	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	115 / -	°C	ISO 75-1/-2
Max. usage temperature (long term)	100	°C	ISO 2578
Max. usage temperature (short term)	150	°C	EMS

Electrical Properties	dry/cond	Unit	Standard
Electric strength	36 / 35	kV/mm	IEC 60243-1
Volume resistivity	1E11 / 1E11	Ohm*m	IEC 62631-3-1
Surface resistivity	- / 1E12	Ohm	IEC 62631-3-2

General Properties	dry/cond	Unit	Standard
Density	1010 / -	kg/m³	ISO 1183
Burning behav. at thickness h	HB / -	class	IEC 60695-11-10
Thickness tested	0.8 / -	mm	
Water absorption	1.5 / -	%	Sim. to ISO 62

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General Properties	dry/cond	Unit	Standard
Humidity absorption	0.7 / -	%	Sim. to ISO 62
Molding shrinkage, parallel	0.8 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.85 / -	%	ISO 294-4, 2577

Processing Extrusion	Value	Unit	Standard
Length	24 - 25	mm	
Compression ratio	2.8 - 3.5		
Hopper zone	15 - 60	°C	
Conveying zone	170 - 210	°C	
Compression zone	200 - 240	°C	
Metering zone	200 - 240	°C	
Melt	200 - 250	°C	
Die	200 - 240	°C	
Adapter	200 - 240	°C	

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