TECHNICAL DATASHEET

Grilamid L 25 NZ ESD black

PA12-I

EMS-GRIVORY
Material Database

Processing
Other extrusion

Delivery form
Granules

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 designation according to ISO 1874:
PA 12-HI, EH, 24-010

Mechanical Properties	dry/cond	Unit	Standard
Tensile modulus	- / 1000	MPa	ISO 527
Yield stress	- / 35	MPa	ISO 527
Yield strain	- / 12	%	ISO 527
Nominal strain at break	- / >50	%	ISO 527
Charpy notched impact strength, +23°C	- / 80	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	- / 20	kJ/m²	ISO 179/1eA

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	45 / -	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	95 / -	°C	ISO 75-1/-2
Max. usage temperature (long term)	90 - 110	°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
Surface resistivity	- / 1E6	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	0.6 / -	%	Sim. to ISO 62
Molding shrinkage, parallel	1.15 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	1.35 / -	%	ISO 294-4, 2577

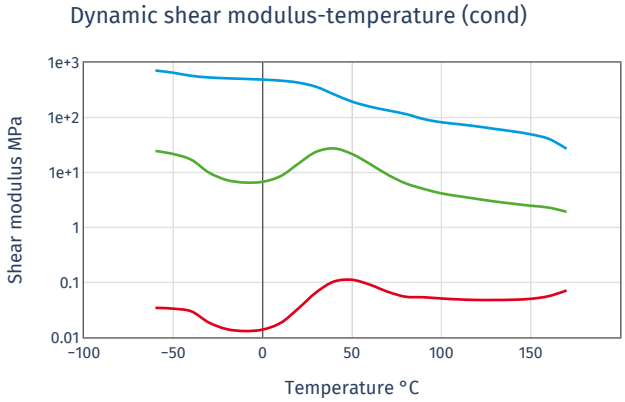
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Processing Injection Molding	Value	Unit	Standard
Hopper zone	40 - 60	°C	
Feeding zone	220 - 240	°C	
Compression zone	230 - 260	°C	
Metering zone	230 - 270	°C	
Nozzle (IM)	230 - 270	°C	
Melt	240 - 270	°C	
Mold surface temperature	40 - 80	°C	
Injection speed	Low - Medium	-	
Pressure	300 - 800	bar	
Dynamic pressure (hydraulic)	50 - 100	bar	
Circumferencial screw speed	5 - 15	m/s	

Processing Extrusion	Value	Unit	Standard
Length	18 - 22	mm	
Compression ratio	2 - 2.5		
Hopper zone	60 - 90	°C	
Conveying zone	200 - 230	°C	
Compression zone	210 - 240	°C	
Metering zone	210 - 240	°C	
Melt	220 - 240	°C	
Die	220 - 230	°C	
Adapter	220 - 230	°C	

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Diagrams



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