Grilon R 50 H NZ natural

PA6 EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product-nomenclature: ISO 16396-PA6-I,,GH,S34-020

Product Attributes

High viscosity, Improved impact resistance, Improved heat resistance

Markets

Automotive
Air intake sytems, Hydraulic systems, Cooling and climate control, Fuel systems
Electricals & Electronics
Cables & Tubes
Industry & Consumer goods
Hydraulics & Pneumatics

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Density of melt	**910**	kg/m³	-
[C] Thermal conductivity of melt	**0.22**	W/(m K)	-
[C] Spec. heat capacity of melt	**2600**	J/(kg K)	-
[C] Eff. thermal diffusivity	**9.3E-8**	m²/s	-
[C] Ejection temperature	**200**	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**1800 / 600**	MPa	ISO 527
[C] Yield stress	**50 / ***	MPa	ISO 527
[C] Yield strain	**5 / ***	%	ISO 527
[C] Nominal strain at break	**>50 / ***	%	ISO 527
[C] Stress at 50% strain	*** / 25**	MPa	ISO 527
[C] Strain at break	*** / >50**	%	ISO 527
[C] Charpy notched impact strength, +23°C	**95 / N**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**25 / 25**	kJ/m²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**222 / ***	°C	ISO 11357-1/-3
[C] Temp. of deflection under load, 1.80 MPa	**45 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**105 / ***	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**166 / ***	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**130 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**140 / ***	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at thickness h	**HB / ***	class	IEC 60695-11-10
Thickness tested	**0.8 / ***	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Volume resistivity	**1E12 / 1E11**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / 1E12**	Ohm	IEC 62631-3-2
[C] Comparative tracking index	**- / 475**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**9 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**3 / ***	%	Sim. to ISO 62

[C] Density	**1070 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**285**	°C	ISO 294
Injection Molding, mold temperature	**80**	°C	ISO 294
Injection Molding, injection velocity	**250**	mm/s	ISO 294
Injection Molding, pressure at hold	**75**	MPa	ISO 294

[C]: CAMPUS

Characteristics

Processing
Other Extrusion, Blow Molding

Delivery form
Granules, Natural Color

Special Characteristics
High impact or impact modified, Heat stabilized or stable to heat

Applications
Automotive, Electrical and Electronical

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

Other text information

Injection molding
PREPROCESSING
Max. water content : <= 0.1 %
PROCESSING
Melt temperature : 260-280 °C
Mould wall temperature : 80 °C
Holding pressure : 300-800 bar
Screw : 50-100 rpm
Back pressure : 1-15 bar
Injection speed : 2
(1=slow, 3=medium, 5=fast)

Please consider the information about the application of the materials.

Other extrusion
-- PIPE EXTRUSION --
PROCESSING
Melt temperature : 240-250 °C
Feeding bush : 40-80
Barrel temp. profile : 240-250 °C
Head temp. : 250-240 °C

Please consider the information about the application of the materials.