

Grilon® BG-50 HM

Polyamide 6

EMS-GRIVORY

Message:

Grilon® BG-50 HM is a Polyamide 6 (Nylon 6) material filled with 50% glass fiber. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for injection molding.

Important attributes of Grilon® BG-50 HM are:

Flame Rated

RoHS Compliant

Heat Stabilizer

Impact Resistant

Typical applications include:

Automotive

Appliances

Electrical/Electronic Applications

General Information				
Filler / Reinforcement		Glass Fiber,50% Filler by Weight		
Additive		Heat Stabilizer		
Features		Heat Stabilized		
		High Impact Resistance		
Uses		Appliance Components		
		Automotive Applications		
		Automotive Interior Parts		
		Electrical/Electronic Applications		
RoHS Compliance		RoHS Compliant		
Forms		Granules		
Processing Method		Injection Molding		
Multi-Point Data		Isothermal Stress vs. Strain (ISO 11403-1)		
		Secant Modulus vs. Strain (ISO 11403-1)		
		Shear Modulus vs. Temperature (ISO 11403-1)		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.49	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.20	--	%	
Flow	0.10	--	%	
Water Absorption				ISO 62
Saturation, 23°C	3.5	--	%	
Equilibrium, 23°C, 50% RH	1.0	--	%	
Hardness	Dry	Conditioned	Unit	Test Method

Ball Indentation Hardness	210	140	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	14000	10000	MPa	ISO 527-2
Tensile Stress (Break)	175	100	MPa	ISO 527-2
Tensile Strain (Break)	3.0	5.0	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	10	10	kJ/m ²	
23°C	12	16	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	40	25	kJ/m ²	
23°C	40	45	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
1.8 MPa, Unannealed	200	--	°C	ISO 75-2/A
8.0 MPa, Unannealed	140	--	°C	ISO 75-2/C
Continuous Use Temperature				Internal Method
-- ¹	80.0 to 110	--	°C	
-- ²	160	--	°C	
Melting Temperature ³	222	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	2.0E-5	--	cm/cm/°C	
Transverse	1.2E-4	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+14	1.0E+13	ohms·cm	IEC 60093
Electric Strength	40	38	kV/mm	IEC 60243-1
Comparative Tracking Index	--	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification (0.800 mm)	HB	--		IEC 60695-11-10, -20
Additional Information	Dry	Conditioned		Test Method
ISO Type	PA 6-HI, MH, 18-140, GF50	--		ISO 1874
NOTE				
1.	Long Term			
2.	Short Term			
3.	10°C/min			

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