

Grilon® BK-50

Polyamide 6

EMS-GRIVORY

Message:

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

Important attributes of Grilon® BK-50 are:

- Flame Rated
- RoHS Compliant

Typical applications include:

- Automotive
- Appliances
- Consumer Goods
- Electrical/Electronic Applications
- Household Applications

General Information				
UL YellowCard		E53898-243869	E132701-237885	
Filler / Reinforcement		Glass Bead,50% Filler by Weight		
Uses		Appliance Components		
		Automotive Applications		
		Automotive Interior Parts		
		Consumer Applications		
		Electrical/Electronic Applications		
		Household Goods		
		Industrial Applications		
		Power/Other Tools		
		Sporting Goods		
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)		
		Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.55	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.70	--	%	
Water Absorption				ISO 62
Saturation, 23°C	5.0	--	%	

Equilibrium, 23°C, 50% RH	1.5	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	6100	1700	MPa	ISO 527-2
Tensile Stress (Yield)	95.0	45.0	MPa	ISO 527-2
Tensile Strain (Yield)	4.0	8.0	%	ISO 527-2
Nominal Tensile Strain at Break	8.0	25	%	ISO 527-2
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	3.0	3.0	kJ/m ²	
23°C	4.0	4.0	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	35	--	kJ/m ²	
23°C	60	--	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
1.8 MPa, Unannealed	95.0	--	°C	ISO 75-2/A
8.0 MPa, Unannealed	45.0	--	°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	7.0E-5	--	cm/cm/°C	
Transverse	7.0E-5	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	--	1.0E+10	ohms	IEC 60093
Volume Resistivity	1.0E+13	1.0E+11	ohms·cm	IEC 60093
Electric Strength	36	29	kV/mm	IEC 60243-1
Comparative Tracking Index	--	450	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, MHR, 18-060N, GB 50	--		ISO 1874
NOTE				
1.	Long Term			
2.	Short Term			
3.	10°C/min			

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