Bergamid™ B700 UF

Polyamide 6

Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East	• Asia Pacific	• Europe
Features	• Flame Retardant	• Halogen Free	• Low (to None) Phosphorus Content
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		

Technical Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density [2]	1.18	1.19	g/cm³	DIN 53479
K-Value [3]	74.0 to 78.0	74.0 to 78.0		
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (73°F (23°C))	479000 (3300)	218000 (1500)	psi (MPa)	ISO 527-2/1
Tensile Stress (Break, 73°F (23°C))	10900 (75.0)	7980 (55.0)	psi (MPa)	ISO 527-2/5
Tensile Strain (Break, 73°F (23°C))	3.0 to 8.0	20	%	ISO 527-2/5
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	1.4 (3.0)	3.0 (6.3)	ft·lb/in² (kJ/m²)	
73°F (23°C)	1.9 (4.0)	4.0 (8.4)	ft·lb/in² (kJ/m²)	
Charpy Unnotched Impact Strength				ISO 179/1eU
73°F (23°C)	No Break	No Break		
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				ISO 75-2/B
66 psi (0.45 MPa), Unannealed	374 (190)	374 (190)	°F (°C)	
Heat Deflection Temperature				ISO 75-2/A
264 psi (1.8 MPa), Unannealed	176 (80.0)	176 (80.0)	°F (°C)	
Maximum Use Temperature				IEC 60216
-- [4]	185 (85)	185 (85)	°F (°C)	
Short Time	320 (160)	320 (160)	°F (°C)	
Melting Temperature (DSC)	433 (223)	433 (223)	°F (°C)	ISO 3146
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+10 to 1.0E+13	1.0E+10 to 1.0E+13	ohms	IEC 60093

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Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+12 to 1.0E+15	1.0E+12 to 1.0E+15	ohms·cm	IEC 60093
Electric Strength	--	1100 (45)	V/mil (kV/mm)	IEC 60243-1
Relative Permittivity (1 MHz)	7.00	7.00		IEC 60250
Comparative Tracking Index (Solution A)	600	600	V	IEC 60112
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating				Internal Method
0.01 to 0.12 in (0.4 to 3.0 mm), ALL	V-0	V-0		
Glow Wire Flammability Index				IEC 60695-2-12
0.02 to 0.12 in (0.4 to 3.0 mm)	1760 (960)	1760 (960)	°F (°C)	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.06 in (1.6 mm)	1380 (750)	1380 (750)	°F (°C)	
0.12 in (3.0 mm)	1340 (725)	1340 (725)	°F (°C)	

Processing Information

Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Processing (Melt) Temp	446 to 491 °F	230 to 255 °C
Mold Temperature	86 to 158 °F	30 to 70 °C

Notes

[1] Typical values are not to be construed as specifications.

[2] ±0.03 g/cm³

[3] 96% H2SO4

[4] Continuous (GTP 50% Tensile)

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