



Bergamid™ A700 G40 H (f1)

Polyamide 66

Key Characteristics

General	
Material Status	• Commercial: Active
Regional Availability	• Africa & Middle East • Europe • Asia Pacific • North America
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight
Features	• Heat Stabilized
RoHS Compliance	• RoHS Compliant
UL File Number	• QMFZ2.E76261
Forms	• Pellets

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density ²	1.45 g/cm ³	1.45 g/cm ³	DIN 53479
Dimensional Stability	0.0 %	0.0 %	ISO 2796
K-Value ³	74.0 to 78.0	74.0 to 78.0	
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ⁴ (73°F (23°C))	1.60E+6 psi	11000 MPa	ISO 527-2
Tensile Stress (Break, 73°F (23°C))	31200 psi	215 MPa	ISO 527-2/5
Tensile Strain (Break, 73°F (23°C))	3.0 %	3.0 %	ISO 527-2/5
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/A
-22°F (-30°C)	7.1 ft·lb/in ²	15 kJ/m ²	
73°F (23°C)	7.6 ft·lb/in ²	16 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179
-22°F (-30°C)	38 ft·lb/in ²	80 kJ/m ²	
73°F (23°C)	43 ft·lb/in ²	90 kJ/m ²	
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/B
66 psi (0.45 MPa), Unannealed	482 °F	250 °C	
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Unannealed	482 °F	250 °C	
Maximum Use Temperature			IEC 60216
-- ⁵	266 °F	130 °C	
Short Time	428 °F	220 °C	
Melting Temperature (DSC)	502 °F	261 °C	ISO 3146
RTI Elec			UL 746
0.028 in (0.70 mm)	194 °F	90.0 °C	
0.06 in (1.5 mm)	194 °F	90.0 °C	
0.12 in (3.0 mm)	194 °F	90.0 °C	
RTI Imp			UL 746
0.028 in (0.70 mm)	194 °F	90.0 °C	
0.06 in (1.5 mm)	194 °F	90.0 °C	
0.12 in (3.0 mm)	194 °F	90.0 °C	

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Thermal	Typical Value (English)	Typical Value (SI)	Test Method
RTI Str			UL 746
0.028 in (0.70 mm)	212 °F	100 °C	
0.06 in (1.5 mm)	221 °F	105 °C	
0.12 in (3.0 mm)	230 °F	110 °C	
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	> 1.0E+12 ohms	> 1.0E+12 ohms	IEC 60093
Volume Resistivity	> 1.0E+11 ohms·cm	> 1.0E+11 ohms·cm	IEC 60093
Dielectric Strength	530 V/mil	21 kV/mm	ASTM D149
Electric Strength	2300 V/mil	90 kV/mm	IEC 60243-1
Relative Permittivity (1 MHz)	3.70	3.70	IEC 60250
Arc Resistance	PLC 6	PLC 6	ASTM D495
Comparative Tracking Index (CTI)	PLC 0	PLC 0	UL 746
High Amp Arc Ignition (HAI)			UL 746
0.028 in (0.70 mm)	PLC 0	PLC 0	
0.06 in (1.5 mm)	PLC 0	PLC 0	
0.12 in (3.0 mm)	PLC 0	PLC 0	
High Voltage Arc Tracking Rate (HVTR)	PLC 0	PLC 0	UL 746
Hot-wire Ignition (HWI)			UL 746
0.028 in (0.70 mm)	PLC 4	PLC 4	
0.06 in (1.5 mm)	PLC 2	PLC 2	
0.12 in (3.0 mm)	PLC 3	PLC 3	
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating			UL 94
0.028 in (0.70 mm), ALL	HB	HB	
0.06 in (1.5 mm), ALL	HB	HB	
0.12 in (3.0 mm), ALL	HB	HB	
Flammability Classification			IEC 60695-11-10, -20
0.12 in (3.0 mm), ALL	HB40	HB40	
0.028 in (0.70 mm), ALL	HB75	HB75	
0.06 in (1.5 mm), ALL	HB75	HB75	

Notes

¹ Typical values are not to be construed as specifications.

² ±0.03 g/cm³

³ 96% H2SO4

⁴ 0.039 in/min (1 mm/min)

⁵ Continuous (GTP 50% Tensile)

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