



# Bergamid™ A700

## Polyamide 66

### Key Characteristics

General	
Material Status	• Commercial: Active
Regional Availability	• Asia Pacific • Europe • North America
RoHS Compliance	• RoHS Compliant
UL File Number Global	• E76261
Forms	• Pellets
Processing Method	• Extrusion • Injection Molding

### Technical Properties <sup>1</sup>

Physical	Dry	Conditioned	Unit	Test Method
Density <sup>2</sup>	1.13	--	g/cm <sup>3</sup>	DIN 53479
Water Absorption (Saturation, 73°F (23°C))	8.5	--	%	ISO 62
Water Absorption Equilibrium, 73°F (23°C), 50% RH	2.8	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus <sup>3</sup> (73°F (23°C))	464000 (3200)	232000 (1600)	psi (MPa)	ISO 527-2/1
Tensile Stress <sup>3</sup> (Yield, 73°F (23°C))	11600 (80.0)	8700 (60.0)	psi (MPa)	ISO 527-2/50
Tensile Strain <sup>3</sup> (Yield, 73°F (23°C))	4.5	25	%	ISO 527-2/50
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-22°F (-30°C)	1.9 (4.0)	--	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
73°F (23°C)	2.9 (6.0)	12 (25)	ft·lb/in <sup>2</sup> (kJ/m <sup>2</sup> )	
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F (-30°C)	No Break	--		
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	428 (220)	--	°F (°C)	
Heat Deflection Temperature				ISO 75-2/A
264 psi (1.8 MPa), Unannealed	176 (80.0)	--	°F (°C)	
Maximum Use Temperature				IEC 60216
-- <sup>4</sup>	194 (90)	--	°F (°C)	
Short Time	392 (200)	--	°F (°C)	

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Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature (DSC)	502 (261)	--	°F (°C)	ISO 3146
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+13	1.0E+10	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+12	ohms·cm	IEC 60093
Electric Strength	3000 (120)	2000 (80)	V/mil (kV/mm)	IEC 60243-1
Relative Permittivity (1 MHz)	3.60	5.00		IEC 60250
Dissipation Factor (1 MHz)	0.026	0.20		IEC 60250
Comparative Tracking Index (Solution A)	600	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.02 to 0.12 in (0.4 to 3.0 mm)	V-2	V-2		
Glow Wire Flammability Index <sup>5</sup>				IEC 60695-2-12
0.031 in (0.8 mm)	1380 (750)	--	°F (°C)	
Glow Wire Ignition Temperature <sup>6</sup>				IEC 60695-2-13
0.031 in (0.8 mm)	1250 (675)	--	°F (°C)	

### Processing Information

Injection	Dry (English)	Dry (SI)
Drying Temperature	176 °F	80.0 °C
Drying Time - Desiccant Dryer	4.0 to 8.0 hr	4.0 to 8.0 hr
Processing (Melt) Temp	518 to 554 °F	270 to 290 °C
Mold Temperature	104 to 176 °F	40.0 to 80.0 °C
Back Pressure	7250 to 14500 psi	50.0 to 100 MPa

### Notes

- <sup>1</sup> Typical values are not to be construed as specifications.
- <sup>2</sup> ±0.02 g/cm<sup>3</sup>
- <sup>3</sup> dry as moulded
- <sup>4</sup> Continuous (GTP 50% Tensile)
- <sup>5</sup> Typical property for uncolored material, not to be construed as specification
- <sup>6</sup> Typical property for uncolored material; not to be construed as specification

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