Gravi-Tech™ GRV-NY-050-CU-NAT

Polyamide 6

Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• High Specific Gravity	• Non-Toxic	
Uses	• Industrial Applications • Medical/Healthcare Applications	• Projectiles • Sporting Goods	• Weighting & Balancing
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	5.00	5.00	ASTM D792
Molding Shrinkage - Flow	8.0E-3 in/in	0.80 %	ASTM D955
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus [2]	1.80E+6 psi	12400 MPa	ASTM D638
Tensile Strength [2] (Yield)	8500 psi	58.6 MPa	ASTM D638
Tensile Elongation [2] (Break)	1.0 %	1.0 %	ASTM D638
Flexural Modulus	1.60E+6 psi	11000 MPa	ASTM D790
Flexural Strength	13000 psi	89.6 MPa	ASTM D790
Impact	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Notched Izod Impact			ASTM D256A
73°F (23°C), 0.250 in (6.35 mm), Injection Molded	1.0 ft·lb/in	53 J/m	
Thermal	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.125 in (3.18 mm)	384 °F	196 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	280 °F	138 °C	
CLTE - Flow			ASTM E831
-22 to 122°F (-30 to 50°C)	2.3E-5 in/in/°F	4.1E-5 cm/cm/°C	
176 to 302°F (80 to 150°C)	5.3E-5 in/in/°F	9.5E-5 cm/cm/°C	
CLTE - Transverse			ASTM E831
-22 to 122°F (-30 to 50°C)	2.1E-5 in/in/°F	3.8E-5 cm/cm/°C	
176 to 302°F (80 to 150°C)	4.5E-5 in/in/°F	8.1E-5 cm/cm/°C	
Thermal Conductivity	19 Btu·in/hr/ft²/°F	2.7 W/m/K	ASTM E1461

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	160 to 180 °F	71 to 82 °C
Processing (Melt) Temp	520 to 560 °F	271 to 293 °C

Injection	Typical Value (English)	Typical Value (SI)
Mold Temperature	180 to 225 °F	82 to 107 °C

Notes

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

[2] Type I, 0.20 in/min (5.1 mm/min)

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