



# 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 <sup>1</sup>

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 <sup>2</sup>	1.80E+6 psi	12400 MPa	ASTM D638
Tensile Strength <sup>2</sup> (Yield)	8500 psi	58.6 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (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 73°F (23°C), 0.250 in (6.35 mm), Injection Molded	1.0 ft·lb/in	53 J/m	ASTM D256A
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed, 0.125 in (3.18 mm)	384 °F	196 °C	ASTM D648
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	280 °F	138 °C	ASTM D648
CLTE - Flow -22 to 122°F (-30 to 50°C) 176 to 302°F (80 to 150°C)	2.3E-5 in/in/°F 5.3E-5 in/in/°F	4.1E-5 cm/cm/°C 9.5E-5 cm/cm/°C	ASTM E831
CLTE - Transverse -22 to 122°F (-30 to 50°C) 176 to 302°F (80 to 150°C)	2.1E-5 in/in/°F 4.5E-5 in/in/°F	3.8E-5 cm/cm/°C 8.1E-5 cm/cm/°C	ASTM E831
Thermal Conductivity	19 Btu·in/hr/ft <sup>2</sup> /°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**

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> Type I, 0.20 in/min (5.1 mm/min)