Gravi-Tech™ GRV NJ-090-W Black SO1

Polyamide 12

Key Characteristics

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

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	8.85 g/cm³	8.85 g/cm³	ISO 1183
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus			ISO 527-1/1
73°F (23°C), 0.157 in (4.00 mm)	1.67E+6 psi	11500 MPa	
Tensile Stress			ISO 527-2/5
Break, 73°F (23°C), 0.157 in (4.00 mm)	8700 psi	60.0 MPa	
Tensile Strain			ISO 527-2/5
Break, 73°F (23°C), 0.157 in (4.00 mm)	0.50 to 1.2 %	0.50 to 1.2 %	
Flexural Modulus [2]			ISO 178
73°F (23°C), 0.157 in (4.00 mm)	1.80E+6 psi	12400 MPa	
Flexural Stress [2]			ISO 178
73°F (23°C), 0.157 in (4.00 mm)	13800 psi	95.0 MPa	
Impact	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Charpy Notched Impact Strength (73°F (23°C))	2.9 ft·lb/in²	6.0 kJ/m²	ISO 179
Charpy Unnotched Impact Strength			ISO 179
73°F (23°C)	5.7 ft·lb/in²	12 kJ/m²	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	1.0 %	1.0 %
Processing (Melt) Temp	446 to 536 °F	230 to 280 °C
Mold Temperature	140 to 194 °F	60 to 90 °C

Notes

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

[2] 0.079 in/min (2.0 mm/min)

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