



Gravi-Tech™ GRV-NJ-110-W

Polyamide 12

Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • North America	• South 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
Specific Gravity	11.0	11.0 g/cm ³	ASTM D792
Molding Shrinkage - Flow	0.0050 to 0.0070 in/in	0.50 to 0.70 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	1.30E+6 psi	8960 MPa	ASTM D638
Tensile Strength ² (Yield)	6500 psi	44.8 MPa	ASTM D638
Tensile Elongation ² (Break)	1.0 %	1.0 %	ASTM D638
Flexural Modulus	1.20E+6 psi	8270 MPa	ASTM D790
Flexural Strength	10000 psi	68.9 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	1.5 ft-lb/in	80 J/m	ASTM D256A
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed, 0.250 in (6.35 mm)	311 °F	155 °C	ASTM D648

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	175 °F	79.4 °C
Drying Time	4.0 hr	4.0 hr
Processing (Melt) Temp	500 to 550 °F	260 to 288 °C
Mold Temperature	180 to 300 °F	82.2 to 149 °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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CONTACT INFORMATION**Americas**

Mexico - Toluca
+52 722 2790200

United States - Avon Lake
+1 440 930 1000

Asia

China - Shanghai
+86 21 5080 1188

China - Shenzhen
+86 755 2969 2888

China - Suzhou
+86 512 6823 24 38

China - Tianjin
+86 22 2532 8818

India - Navi Mumbai
+91 22 27784426/22781218

Japan - Tokyo
+81 369 129 102

Singapore - Singapore
+65 6861 9325

Taiwan - Yonghe City,
+886 9396 99740

Europe

Germany - Gaggenau
+49 7225 6802 0

Spain - Barbastro (Huesca)
+34 974 310 314

Turkey - Basaksehir-Istanbul-Türkiye
+90 212 549 2256



Beyond Polymers.

Better Business Solutions. SM

www.polyone.com

PolyOne Americas

33587 Walker Road
Avon Lake, Ohio 44012
United States
+1 440 930 1000
+1 866 POLYONE

PolyOne Asia

No. 88 Guoshoujing Road
Z.J Hi-tech Park, Pudong
Shanghai, 201203, China
+86 21 5080 1188

PolyOne Europe

6 Giällewee
Please Call Assesse
Belgium Phone Number +32
83 660 211

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