



Gravi-Tech™ GRV-UR-090-W-BLK

Polyurethane Thermoset Elastomer, Polyester Based

Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• North America		
Features	• High Density	• Non-Toxic	
Uses	• Industrial Applications • Medical/Healthcare Applications	• Projectiles • Sporting Goods	• Weighting & Balancing
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	9.00	9.00	ASTM D792
Molding Shrinkage - Flow	4.0E-3 to 9.0E-3 in/in	0.40 to 0.90 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Flexural Modulus ²	94000 psi	648 MPa	ASTM D790
Flexural Strength ² (Yield)	2800 psi	19.3 MPa	ASTM D790
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength (Yield)	2500 psi	17.2 MPa	ASTM D412
Tensile Elongation (Break)	35 %	35 %	ASTM D412
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), 0.125 in (3.18 mm)	4.3 ft-lb/in	230 J/m	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D, 10 sec)	65	65	ASTM D2240

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	180 °F	82.2 °C
Drying Time	2.0 to 3.0 hr	2.0 to 3.0 hr
Suggested Max Moisture	0.010 to 0.030 %	0.010 to 0.030 %
Rear Temperature	330 to 340 °F	166 to 171 °C
Middle Temperature	350 to 360 °F	177 to 182 °C
Front Temperature	360 to 370 °F	182 to 188 °C
Nozzle Temperature	380 to 390 °F	193 to 199 °C
Mold Temperature	60.0 to 140 °F	15.6 to 60.0 °C

Notes

¹ Typical values are not to be construed as specifications.

² 0.50 in/min (13 mm/min)

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