



Gravi-Tech™ GT6000-0023 Black 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	• Appliance Components • Automotive Applications • Consumer Applications • Handles	• Industrial Applications • Knobs • Medical/Healthcare Applications • Metal Replacement	• Sporting Goods • Weighting & Balancing
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	2.35	2.35	ASTM D792
Molding Shrinkage - Flow	0.010 to 0.014 in/in	1.0 to 1.4 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	736000 psi	5070 MPa	ASTM D638
Tensile Strength ² (Yield)	9300 psi	64.1 MPa	ASTM D638
Tensile Elongation ² (Break)	3.0 %	3.0 %	ASTM D638
Flexural Modulus ³	660000 psi	4550 MPa	ASTM D790
Flexural Strength ³	15000 psi	103 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.125 in (3.18 mm), Injection Molded	1.0 ft·lb/in	53 J/m	ASTM D256A
Unnotched Izod Impact 73°F (23°C), 0.125 in (3.18 mm), Injection Molded	7.0 ft·lb/in	370 J/m	ASTM D256
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Rockwell Hardness (R-Scale, 73°F (23°C))	113	113	ASTM D785
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed	381 °F	194 °C	ASTM D648
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	212 °F	100 °C	ASTM D648

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	180 °F	82.2 °C
Drying Time	4.0 to 5.0 hr	4.0 to 5.0 hr
Suggested Max Moisture	0.095 to 0.20 %	0.095 to 0.20 %

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Injection	Typical Value (English)	Typical Value (SI)
Rear Temperature	430 to 500 °F	221 to 260 °C
Middle Temperature	440 to 500 °F	227 to 260 °C
Front Temperature	460 to 510 °F	238 to 266 °C
Nozzle Temperature	460 to 520 °F	238 to 271 °C
Mold Temperature	150 to 200 °F	65.6 to 93.3 °C

Notes

¹ Typical values are not to be construed as specifications.

² Type I, 0.20 in/min (5.1 mm/min)

³ 0.050 in/min (1.3 mm/min)

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