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			ASTM D256A
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	1.0 ft·lb/in	53 J/m	
Unnotched Izod Impact			ASTM D256
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	7.0 ft·lb/in	370 J/m	
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			ASTM D648
66 psi (0.45 MPa), Unannealed	381 °F	194 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	212 °F	100 °C	

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 %

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)

CONTACT INFORMATION

Americas

United States - Avon Lake
+1 440 930 1000

United States - McHenry
+1 815 385 8500

Asia

China - Guangzhou
+86 20 8732 7260

China - Shenzhen
+86 755 2969 2888

China - Suzhou
+86 512 6823 24 38

China - Suzhou
+86 512 6265 2600

Hong Kong -
+852 2690 5332

Taiwan - Yonghe City,
+886 9396 99740, +886 2929 1849

Europe

Germany - Gaggenau
+49 7225 6802 0

Spain - Barbastro (Huesca)
+34 974 310 314

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
+352 269 050 35