

AuroraGuard™ PBT-15GF

Aurora Material Solutions, LLC - *Polybutylene Terephthalate*

General Information

Product Description

15% fiberglass reinforced injection molding grade of Polybutylene Terephthalate (PBT). Ideal for parts and applications requiring a balance of good rigidity with heat and chemical resistance, dimensional stability, and toughness.

Available with and without mold release.

Available in natural, black, and custom colors upon request.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Latin America	• North America
	• Europe		
Features	• Chemical Resistant	• Good Processability	• High Heat Resistance
	• Good Dimensional Stability	• Good Rigidity	
	• Good Flow	• Good Toughness	
Uses	• Appliances	• Automotive Under the Hood	• Housings
	• Automotive Exterior Parts	• Electrical Parts	• Lawn & Garden Equipment
	• Automotive Interior Parts	• Handles	
RoHS Compliance	• RoHS Compliant		
Appearance	• Black	• Colors Available	• Natural Color
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.41		ASTM D792
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	35	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	5.0E-3 to 8.0E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.125 in)	8.0E-3 to 0.011	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	13000	psi	ASTM D638
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	700000	psi	ASTM D790
Flexural Strength	21000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	1.0	ft·lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	370	°F	ASTM D648
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		Internal Method

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	470 to 500	°F
Middle Temperature	480 to 510	°F
Front Temperature	490 to 520	°F
Nozzle Temperature	490 to 520	°F
Mold Temperature	140 to 190	°F
Injection Rate	Moderate-Fast	



Back Pressure	50.0 to 200 psi
Screw Speed	50 to 80 rpm

Notes

¹ Typical properties: these are not to be construed as specifications.

