

PA 4050 GB

Overview

PA 4050 GB has well-balanced material characteristics that are ideal for applications that require durable, high-quality parts. The detail resolution and excellent surface finish allow for solid-built parts. Multiple finishing possibilities make PA 4050 GB ideal for open-sourced laser sintering 3D printers.

Similar to a PA 12 GB, PA 4050 GB should be selected for applications that require functional testing, durable prototyping, or low-volume builds. With increased dimensional stability, this material holds up to heavy-duty part requirements. Some common applications include (but are not limited to): functional prototypes, complex geometries, low temperature duct work, caster housings, and other housings and enclosures.



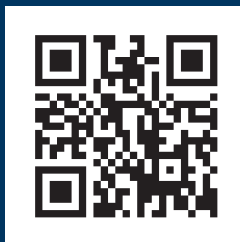
Advantages:

- Higher stiffness than PA 4000
- Produces dense parts with an excellent surface finish
- Color stability
- Relatively isotropic performance

Applications:

- Functional prototypes
- Complex geometries
- Low temperature duct work
- Caster housings
- Housings and enclosures

Scan for more information:



PA 4050 GB



Part Bed Temp 168°C
Piston Temp 155°C
Cylinder Temp 155°C
Feed Temp 150°C



Fill Laser Power
70W
Fill Scan Spacing
0.3
Fill Scan Count
1



Layer Thickness
0.12 mm



Colors Available
Natural White

Scan to get
print profiles:



Mechanical Properties ¹			
	Test Condition	Typical Value	Method
Tensile Modulus (MPa)	XY coupons, Conditioned	3390	ASTM D638, Type I
Tensile Yield Strength (MPa)		25	
Tensile Elongation at Break (%)		6	
Ultimate Tensile Strength (MPa)		44	
Flexural Modulus (MPa)	XY coupons, Conditioned	2680	ASTM D790
Flexural Strength (MPa)		67	
Izod Impact, notched (J/m)	XY coupons, Conditioned	33	ASTM D256
Izod impact, un-notched (J/m)		221	

1. Testing conducted on printed specimens conditioned at 23°C / 50% RH for 40 hours.

Thermal Properties			
	Test Condition	Typical Value	Method
Heat Deflection Temperature (°C)	0.45 Mpa	172	DMA
Heat Deflection Temperature (°C)	1.82 MPa	129	

Other Physical Properties			
	Test Condition	Typical Value	Method
Bulk Density (g/cm ³)	Ambient	0.67	ASTM D1895
Part Density (g/cm ³)	Ambient	1.49	ASTM D792
Moisture Absorption (weight %)	24 Hours	.11	ASTM D570
Particle Size Distribution (µm)	D10	29	Laser Diffraction
	D50	53	
	D90	84	