

MULTI JET FUSION

PA 12 GLASS BEADS BLACK

[Supplier Data Sheet: HP 3D High Reusability
PA 12 Glass Beads](#)



PRODUCT DESCRIPTION

PA12-Glass Beads Black is a 40% glass bead polyamide with excellent stiffness and dimensional stability. The material possesses higher thermal resistance than unfilled polyamides and exhibits excellent long-term wear resistance. Due to the glass additive, it has decreased impact and tensile strengths compared to other nylons.

APPLICATIONS

The material's stiffness and temperature resistance makes it suited for components in high-heat environments such as automotive engine components or tooling applications. It is also an excellent choice for housings, enclosures and fixtures. The material can be used for both prototyping and end-use parts.

KEY PRODUCT BENEFITS

- Stiffness and dimensional stability
- Long-term wear resistance
- High temperature resistance

PROPERTIES

PROPERTY	TEST METHOD	VALUE
Colour	-	Black
Sintered Density*	ASTM D792	1,30 ± 0,01 g/cm ³
Surface Roughness**	DIN EN ISO 4287	Ra = 10-25 µm; Rz = 60-100 µm
E-Module (x-y plane)	DIN EN ISO 527, test speed 10mm/min	2500 ± 400 MPa
E-Module (z plane)		2500 ± 400 MPa
Tensile strength (x-y plane)		30 ± 5 MPa
Tensile strength (z plane)		30 ± 5 MPa
Elongation at break (x-y plane)		10 ± 5%
Elongation at break (z plane)		10 ± 5%
Heat deflection temperature @ 0,46 MPa*	ASTM D648 Test Method A	174 ± 5 °C
Heat deflection temperature @ 1,82 MPa*		114 ± 5 °C

*From supplier data sheet

**Surface roughness may vary depending on orientation

TOLERANCES

For well-designed parts, tolerances of ± 0.25mm plus 0.002mm/mm can typically be achieved. Note that tolerances may change depending on part geometry.