

MULTI JET FUSION PA 12 BLACK

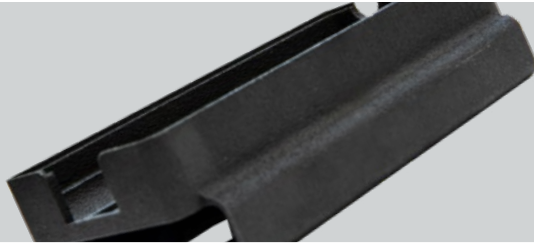


Product Description

PA 12 Black is a high tensile strength nylon suitable for prototypes and end-use production parts. Final parts exhibit quality surface finishes, fine feature resolution, and more consistent mechanical properties when compared to processes like selective laser sintering.

Applications

Multi Jet Fusion's PA 12 black is often used to build housings, enclosures, and fixtures, and can work well for snap fits and hinges.



Key Product Benefits

- ▶ Near isotropic mechanical properties
- ▶ Water- and airtight without further treatment

Tolerances

For well-designed parts, tolerances of ± 0.012 in. plus ± 0.002 in./in. for each additional inch can typically be achieved. Note that tolerances may change depending on part geometry.

Properties

Property	Test Method	Value
Color	-	Black
Sintered Density	ASTM D792	1.01 g/cm ³
Water absorption (20 °C, 50% relative humidity)	ASTM D570	0.5 ± 0.2%
Water absorption, 24 hrs. in boiling water	ASTM D570	2.0 ± 0.3%
E-Module (x-y plane)	ASTM D638, test speed 10mm/min	1,900 ± 200 MPa
E-Module (z plane)	ASTM D638, test speed 10mm/min	1,900 ± 200 MPa
Tensile strength (x-y plane)	ASTM D638, test speed 10mm/min	49 ± 4 MPa
Tensile strength (z plane)	ASTM D638, test speed 10mm/min	47 ± 4 MPa
Elongation at break (x-y plane)	ASTM D638, test speed 10mm/min	12 ± 4%
Elongation at break (z plane)	ASTM D638, test speed 10mm/min	9 ± 4%
Heat deflection temperature @ 0.46 MPa*	ASTM D648	175 °C (374 °F)
Heat deflection temperature @ 1.82 MPa*	ASTM D648	95 °C (203 °F)

* From supplier data sheet