



## MULTI JET FUSION

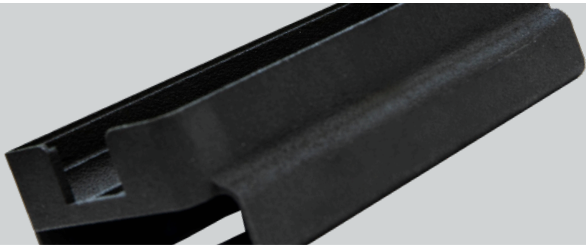
# PA 12 40% Glass-Filled Black

### Product Description

PA 12 40% Glass-Filled Black is a 40% glass-filled nylon. Final parts are dyed black. The biggest advantage offered by this material is the heat deflection temperature of 248°F when measured at 264 psi, ranking 2nd best after PA 12 Mineral-Filled.

### Applications

Multi Jet Fusion's PA 12 40% Glass-Filled Black is often used to build housings, enclosures, and fixtures, and can work well for snap fits and hinges.



### Key Product Benefits

- ▶ Economical material choice
- ▶ Heat deflection

### Tolerances

For well-designed parts, tolerances of  $\pm 0.012$  in. plus  $\pm 0.002$  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	1.3 g/cm <sup>3</sup>
E-module (x-y plane)	ASTM D638, test speed 5mm/min	2900 +/- 400 MPa
E-module (z plane)	ASTM D638, test speed 5mm/min	3500 +/- 275 MPa
Tensile strength (x-y plane)	ASTM D638, test speed 5mm/min	27.5 $\pm$ 2 MPa
Tensile strength (z plane)	ASTM D638, test speed 5mm/min	30 $\pm$ 2 MPa
Elongation at break (x-y plane)	ASTM D638, test speed 5mm/min	8.5 $\pm$ 3%
Elongation at break (z plane)	ASTM D638, test speed 5mm/min	6.8 $\pm$ 3%
Heat Defelction Temperature @ 0.46 MPa*	ASTM D648	175 °C
Heat Defelction Temperature @ 1.82 MPa*	ASTM D648	120 °C

\*From supplier data sheet