SELECTIVE LASER SINTERING

PA 11 BLACK

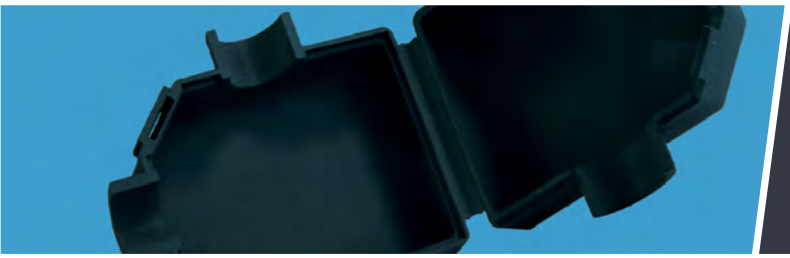
Current Supplier's Material: PA 850 Black

PRODUCT DESCRIPTION

PA 11 Black provides excellent ductility and temperature resistance without sacrificing tensile strength. It offers one of the highest elongation break thresholds in the nylon family.

APPLICATIONS

The material is suited for functional, moving parts with features like snap fits and living hinges. Its black color makes it desirable for optical applications due to low reflectivity.



KEY PRODUCT BENEFITS

- High elongation at break
- Flexibility
- Uniform black color

PROPERTIES

PROPERTY	TEST METHOD	VALUE
Color	-	Black
Sintered Density*	ASTM D792	1.03 g/cm³
Water absorption, 20 °C, 50 % Relative Humidity	ASTM D570	0.3 ± 0.2%
Water absorption, 24 hrs. in boiling water		1.5 ± 0.2%
E-Module (x-y plane)	ASTM D638, test speed 10mm/min	1800 ± 200 MPa
E-Module (z plane)		1800 ± 200 MPa
Tensile strength (x-y plane)		52 ± 4 MPa
Tensile strength (z plane)		49 ± 4 MPa
Elongation at break (x-y plane)		30% ± 7%
Elongation at break (z plane)		18 +/- 7%
Heat deflection temperature @ 0.46 MPa*	ASTM D648	188 °C
Heat deflection temperature @ 1.82 MPa*		48 °C

*From supplier data sheet

TOLERANCES

For well-designed parts, tolerances of ±0.010 in. plus ±0.0015 in./in. for each additional inch can typically be achieved. Note that tolerances may change depending on part geometry.

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CHINA METAL PARTS, CORP.