

# SELECTIVE LASER SINTERING PA12-FLEX PURE BLACK

## PRODUCT SPECIFICATIONS



### PRODUCT DESCRIPTION

PA12 Flex Pure Black is a black / anthracite nylon characterized by excellent flexibility and impact resistance. PA12 Flex Pure Black combines positive properties of PA12 and PP. Strength and stiffness is similar to PA 12. The elongation is comparable to that of unfilled PP. Its high durability makes it an excellent choice not only for prototyping, but also for end-use parts.

### APPLICATIONS

The material is well suited for production of both prototypes, design models as well as functional end-use parts. Typical applications are for example interior parts in the automotive industry.

### KEY PRODUCT BENEFITS

- High elongation at break
- Flexibility
- Durability and toughness

PROPERTY	TEST METHOD	VALUE
Colour	-	Black / anthracite
Sintered Density	DIN EN ISO 1183-1	1,00 ± 0,01 g/cm <sup>3</sup>
E-Module (x-y plane)	DIN EN ISO 527, test speed 10 mm/min	2000 ± 200 MPa
E-Module (z plane)		2000 ± 200 MPa
Tensile strength (x-y plane)		50 ± 4 MPa
Tensile strength (z plane)		48 ± 4 MPa
Elongation at break (x-y plane)		17 ± 4 %
Elongation at break (z plane)		4 ± 2 %
Heat deflection temperature @ 0,46 MPa	DIN EN ISO 75	175 ± 5 °C
Heat deflection temperature @ 1,82 MPa		85 ± 5 °C

### TOLERANCES

For well-designed parts, tolerances of ± 0,35mm plus 0,002mm/mm (or else, for bigger parts, ± 0,2% of nominal dimension) can typically be achieved. Note that tolerances may change depending on part geometry.