

## SELECTIVE LASER SINTERING

# TPU-88A PURE BLACK



## PRODUCT SPECIFICATIONS

### PRODUCT DESCRIPTION

This thermoplastic polyurethane (TPU) combines rubber-like elasticity and elongation with good abrasion and impact resistance. It can be leveraged to produce both prototypes and functional parts.

### APPLICATIONS

The material's rubber-like quality is ideal for seals, gaskets, grips, hoses, or any other application where excellent resistance under dynamic loading is required.

### KEY PRODUCT BENEFITS

- Flexibility
- Tear and abrasion resistance
- Durability

### PROPERTIES

PROPERTY	TEST METHOD	VALUE
Colour	-	Black
Flexural modulus 20 °C	ISO 6721-1, 1Hz, 2 °C/min	27 ± 6 MPa
Flexural modulus 60 °C		72 ± 16 MPa
Tensile strength (x plane)	DIN 53504	20 ± 5 MPa
Tensile strength (z plane)		15 ± 4 MPa
Elongation at break (x-y plane)		520% ± 50%
Elongation at break (z plane)		500% ± 50%
Compression strength (x plane)	ISO 604	33 ± 5 MPa
Compression strength (z plane)		40 ± 6 MPa
Vicat softening temperature	ISO 306	90 °C
Water absorption, 23 °C, 24 h	-	<0.5%

### TOLERANCES

For well-designed parts, tolerances of  $\pm 0.30$  mm plus  $\pm 0.002$ mm/mm can typically be achieved. For parts bigger than 100 mm, tolerance will be  $\pm 0.3\%$  of nominal dimension. Note that tolerances may change depending on part geometry.