

MATERIAL DATASHEET

SLS Laser Sintering Materials

Measurement	PA12	PA-GF	PA11 BLACK	PA COMP.	TPU	Standard
Density	0.98 ± 0.03 g/cm ³	1.49 ± 0.03 g/cm ³	1.01 ± 0.03 g/cm ³	1.20 ± 0.03 g/cm ³	0.85 ± 0.05 g/cm ³	ASTM D792
Natural Color	White	Natural	Black	Natural/Grey	White/Natural	
Tensile Strength	43 ± 5 MPa	27 ± 3 MPa	48 ± 5 MPa	50 ± 2 MPa	2.1 ± 1 MPa	ASTM D638
Tensile Modulus	1600 MPa	4000 MPa	1515 MPa	5560 MPa	5.3 ± 1 MPa	ASTM D638
Flexural Modulus	1415 MPa	3120 MPa	1300 MPa	4475 MPa	6.0 ± 1 MPa	ASTM D790
Elongation at Break	14 ± 5 %	2 ± 3 %	45 ± 5 %	4 ± 5 %	195 ± 5 %	ASTM D638
Shore D/A-hardness	D73 ± 3	D77 ± 3	D74 ± 3	D75 ± 3	A90 ± 2	ASTM D2240
Impact Strength	32 J/m	41 J/m	74 J/m	37 J/m		ASTM D256
Notched impact Strength	335 J/m	123 J/m	1485 J/m	310 J/m		ASTM D256
HDT (1.80 MPa)	95 °C	134 °C	48 °C	179 °C	88 °C	ASTM D648
HDT (0.45 MPa)	180 °C	179 °C	188 °C	185 °C	154 °C	ASTM D648

Actual values may vary with build condition

Mentioned information and mechanical properties in our datasheets are optimum values according to our manufacturing partners and are believed to be accurate, though is provided for your guidance only. All guarantees with respect to the information contained herein are explicitly denied.

