



TECHNICAL DATA SHEET (TDS)

SLS Polymer Material Comparison & Mechanical Properties Matrix

Material Mechanical & Thermal Properties Table

PROPERTY	NYLON 12	NYLON 11	NYLON 12 GF	NYLON 11 CF	TPU 90A	CONDITION
Tensile Strength (MPa)	50	49	38	69	7.2	—
Elongation at Break (%)	11	40	4	9	110	—
Flexural Modulus (MPa)	1600	1400	2400	4200	—	—
Notched Impact Strength (J/m)	32	71	36	74	—	—
Heat Deflection Temp. (°C)	171	182	170	188	—	0.45 MPa
Tensile Modulus (MPa)	1850	1600	2800	5300	—	—
Flexural Strength (MPa)	66	55	56	110	—	—
Heat Deflection Temp. (°C)	87	46	113	178	—	1.8 MPa
Hardness (Shore A)	—	—	—	—	90	—
Tear Strength (kN/m)	—	—	—	—	39	—
Tensile Stress (MPa)	—	—	—	—	7	@100%
Compression Set (%)	—	—	—	—	59.9	70°C / 22 h

Disclaimer & Notes

- Values provided are typical laboratory test results and may vary depending on part geometry, build orientation, and sintering parameters.
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