

General Properties	Method	Value	Value	Value
		Nylon PA	Nylon Glass-Filled	Nylon High Strength
Specific Gravity	ASTM D792	1.00 g/cm ³	1.49 g/cm ³	1.20g/cm ³
SLS Moisture Absorption – 24 hours	ASTM D570	0.07%	0.22%	N/A
Moisture Saturation	ASTM D570	N/A	N/A	N/A
Tensile Strength, Yield	ASTM D638	N/A	27 MPa	N/A
Tensile Strength, Ultimate	ASTM D638	43 MPa	26 MPa	48-51 MPa
Tensile Modulus	ASTM D638	1586 MPa	4068 MPa	5475 -5725 MPa
Elongation at Yield	ASTM D638	N/A	1.4%	N/A
Elongation at Break	ASTM D638	14%	1.4%	4.5%
Flexural Strength, Yield	ASTM D790	N/A	N/A	N/A
Flexural Strength, Ultimate	ASTM D790	48 MPa	37 MPa	83-89 MPa
Flexural Modulus	ASTM D790	1387 MPa	3106 MPA	4400-4550 MPa
Hardness, Shore D	ASTM D2240	73	77	75
Hardness, Rockwell L	ASTM D785	N/A	N/A	N/A
Hardness, Rockwell M	ASTM D785	N/A	N/A	N/A
Impact Strength (notched Izod, 23°C)	ASTM D256	32 J/m	41 J/m	37.4 J/m
Impact Strength (unnotched Izod, 23°C)	ASTM D256	336 J/m	123 J/m	310 J/m
Gardner Impact	ASTM D5420	2.7 J	4.5 J	5 J
Heat Deflection Temperature	ASTM D648			
	@ 0.45 MPa	180 °C	179 °C	184°C
	@ 1.82 MPa	95 °C	134 °C	179°C
Coefficient of Thermal Expansion	ASTM E831			
	@ 0 -50 °C	82.6 µm/m-°C	82.6 µm/m-°C	138.3 µm/m-°C
	@ 85 -145 °C	179.2 µm/m-°C	179.2 µm/m-°C	267.2 µm/m-°C
Specific Heat Capacity	ASTM E1269	1.64 J/g -°C	1.09 J/g -°C	1.503 J/g -°C
Thermal Conductivity	ASTM E1225	0.70 W/m-K	0.47 W/m-K	
Flammability	UL94	HB	HB	HB
Volume Resistivity	ASTM D257	5.9 x 10 ¹³ ohm-cm	3.2 x 10 ¹¹ ohm-cm	6.7 x 10(15) ohm-cm
Surface Resistivity	ASTM D257	7.0 x 10 ¹³ ohm	3.2 x 10 ¹¹ ohm	5.2 x 10 (15) ohm
Dissipation Factor, 1 KHz	ASTM D150	0.044	0.177	0.028
Dielectric Constant, 1 KHz	ASTM D150	2.73	6.27	3.14
Dielectric Strength	ASTM D149	17.3 kV/mm	8.7 kV/mm	18.5 kV/mm

General Properties	TPU
Mechanical Properties	
Sintered Part Density	0.78 g/cm ³
Tensile Strength, Ultimate	2.1 MPa
Tensile Strength, Break	2.0 MPa
Tensile Modulus	5.3 MPa
Elongation at Yield	220 %
Elongation at Break	200 %
Flexural Modulus	6.0 MPa
Hardness, Shore A	50-60
Initial Tear Resistance (Die C @ 23°C)	15.4 J/m
Abrasion Resistance Taber, CS-17 Wheel, 1 Kg Load	97.9 mg/1000 cycles

Please Note:
 Other SLS materials are available through our projects team. Please contact projects@arrkeurope.com for further info.
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