

## ALM D80-ST Nylon 11 SLS Prototyping Polymer

Category : Polymer , Rapid Prototyping Polymer , Thermoplastic , Nylon , Nylon 11

### Material Notes:

Unfilled, color stabilized nylon 11 material that is also stabilized to prevent premature thermal degradation. Parts produced from PA D80-ST exhibit superior mechanical properties. Relatively inexpensive, but parts exhibit a slightly rougher surface finish. Good temperature control is required to process this material. Information provided by Advanced Laser Materials (ALM).

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ALM-D80-ST-Nylon-11-SLS-Prototyping-Polymer.php](http://www.lookpolymers.com/polymer_ALM-D80-ST-Nylon-11-SLS-Prototyping-Polymer.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.450 g/cc	0.0163 lb/in <sup>3</sup>	ASTM D1895
Density	1.01 g/cc	0.0365 lb/in <sup>3</sup>	Sintered Part; ASTM D792
Particle Size	95 µm	95 µm	Average D50; Laser Diffraction
	45 - 151 µm	45 - 151 µm	Range (D10 to D90); Laser Diffraction
Melt Flow	6.0 - 12 g/10 min @Load 1.00 kg, Temperature 235 °C	6.0 - 12 g/10 min @Load 2.20 lb, Temperature 455 °F	3 min.; ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	39.0 MPa	5660 psi	Z direction; ASTM D638
	46.0 MPa	6670 psi	XY direction; ASTM D638
Tensile Strength, Yield	21.0 MPa	3050 psi	Z direction; ASTM D638
	26.0 MPa	3770 psi	XY direction; ASTM D638
Elongation at Break	21 %	21 %	Z direction; ASTM D638
	38 %	38 %	XY direction; ASTM D638
Flexural Modulus	1.345 GPa	195.1 ksi	ASTM D790

Thermal Properties	Metric	English	Comments
Melting Point	186 °C	367 °F	ASTM D3418

## Contact Songhan Plastic Technology Co.,Ltd.

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