

3D Systems DuraForm® AF Nylon for SLS® Systems

Category : Polymer , Rapid Prototyping Polymer , Thermoplastic , Nylon

Material Notes:

Polyamide (nylon) material with metallic appearance for real-world physical testing and functional use. For use with all selective laser sintering SLS® systems. Applications: Housings and enclosures, Consumer products. Appropriate for low- to mid-volume rapid manufacturing. Parts requiring machining or joining with adhesives. Complex production and prototype plastic parts. Form, fit or functional prototypes. Parts requiring stiffness. Thermally stressed parts. Plastic parts requiring a metallic appearance. All information provided by 3D Systems.

Order this product through the following link:

http://www.lookpolymers.com/polymer_3D-Systems-DuraForm-AF-Nylon-for-SLS-Systems.php

Physical Properties	Metric	English	Comments
Bulk Density	0.890 g/cc	0.0322 lb/in ³	tap
	@Temperature 25.0 °C	@Temperature 77.0 °F	
Density	0.690 g/cc	0.0249 lb/in ³	bulk
	@Temperature 25.0 °C	@Temperature 77.0 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	75	75	ASTM D2240
Tensile Strength, Ultimate	35.0 MPa	5080 psi	ASTM D638
Elongation at Break	1.5 %	1.5 %	ASTM D638
Tensile Modulus	3.96 GPa	574 ksi	ASTM D638
Flexural Strength	44.0 MPa	6380 psi	ASTM D790
Flexural Modulus	3.517 GPa	510.1 ksi	ASTM D790
Izod Impact, Notched	0.587 J/cm	1.10 ft-lb/in	ASTM D256
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Unnotched	1.23 J/cm	2.30 ft-lb/in	ASTM D256
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	109 µm/m-°C	60.6 µin/in-°F	ASTM E831
	@Temperature 35.0 - 172 °C	@Temperature 95.0 - 342 °F	
Deflection Temperature at 0.46 MPa			

(66 psi) Thermal Properties	180 °C Metric	356 °F English	ASTM D648 Comments
Deflection Temperature at 1.8 MPa (264 psi)	137 °C	279 °F	ASTM D648

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.60e+13 ohm-cm	1.60e+13 ohm-cm	ASTM D257
Surface Resistance	6.00e+12 ohm	6.00e+12 ohm	ASTM D257
Dielectric Constant	14.5 @Frequency 1000 Hz	14.5 @Frequency 1000 Hz	ASTM D150
Dielectric Strength	1.80 kV/mm	45.7 kV/in	ASTM D149

Descriptive Properties	Value	Comments
Appearance	Light grey metallic	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China