

Proto3000 Duraform® Flex Selective Laser Sintering (SLS®) Prototyping Polymer

Category : Polymer , Rapid Prototyping Polymer , Thermoplastic , Elastomer, TPE

Material Notes:

Description: Thermoplastic elastomer material with rubber-like flexibility and functionality. DuraForm FlexSeal Infiltration: FlexSeal fluid infiltration is an easy-to-use method of coloring, strengthening, and sealing DuraForm Flex parts. Two-Part Polyurethane Infiltration: Infiltration with a two-part polyurethane increases Shore A hardness, creates a watertight barrier, and significantly enhances the burst strength. **Features:** Durable with good tear resistance Vary Shore A hardness without changing material Easy-to-process Good powder recycle characteristics Good surface finish and feature detail **Benefits:** Withstands repeated bending and flexing Build prototypes that withstand functional testing Produce durable end-use parts without tooling DuraForm® FlexSeal infiltration offers array of colors Polyurethane infiltration creates watertight barrier and improves burst strength **Applications:** Athletic footwear and equipment Gaskets, hoses and seals Simulate thermoplastic elastomer, cast urethane, silicone and rubber parts "Soft-touch," overmolded grips Parts requiring rubber-like flexibility and durability Form, fit, or functional prototypes Parts that require joining with adhesives Complex production and prototype plastic parts Appropriate for low- to mid-volume rapid manufacturing DuraForm FlexSeal (1 kg containers) is available in these colors: 24130-902: Black 24131-902: Red 24132-902: Yellow 24133-902: BLue 24136-902: Natural Information provided by Proto3000 for their prototyping engineering services.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Proto3000-Duraform-Flex-Selective-Laser-Sintering-SLS-Prototyping-Polymer.php

Physical Properties	Metric	English	Comments
Density	0.440 g/cc	0.0159 lb/in ³	ASTM D4164

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	45 - 75	45 - 75	as sintered; ASTM D2240
	55 - 80	55 - 80	Infiltrated with flexseal (8-dip process); ASTM D2240
Tensile Strength, Ultimate	1.20 MPa	174 psi	Infiltrated with flexseal (8-dip process); ASTM D638
	1.80 MPa	261 psi	as Sintered; ASTM D638
Elongation at Break	110 %	110 %	as sintered; ASTM D638
	151 %	151 %	Infiltrated with flexseal (8-dip process); ASTM D638
Tensile Modulus	0.00740 GPa	1.07 ksi	as sintered; ASTM D638
	0.00920 GPa	1.33 ksi	Infiltrated with flexseal (8-dip process); ASTM D638
Flexural Modulus	0.00590 GPa	0.856 ksi	as sintered; ASTM D790
			Infiltrated with flexseal (8-dip

Mechanical Properties	0.00780 GPa Metric	1.13 ksi English	process): ASTM D790 Comments
Tear Strength	15.1 kN/m	86.3 pli	as sintered; ASTM D624
	15.4 kN/m	87.9 pli	Infiltrated with flexseal (8-dip process); ASTM D624
Taber Abrasion, mg/1000 Cycles	83.5 @Load 1.00 kg	83.5 @Load 2.20 lb	CS-17 wheel; ASTM D4060

Thermal Properties	Metric	English	Comments
Melting Point	192 °C	378 °F	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.30e+14 ohm-cm	1.30e+14 ohm-cm	ASTM D257
Surface Resistance	1.10e+14 ohm	1.10e+14 ohm	ASTM D257
Dielectric Constant	1.85 @Frequency 1.00e+6 Hz	1.85 @Frequency 1.00e+6 Hz	ASTM D150
Dielectric Strength	1.90 kV/mm	48.3 kV/in	ASTM D149
Dissipation Factor	0.0030 @Frequency 1000 Hz	0.0030 @Frequency 1000 Hz	ASTM D150

Descriptive Properties	Value	Comments
Bursting Strength (Straight)	0.076 MPa	Flex Seal Infiltration (25 mm IDx2 mm thickx300 mm long hose)
	0.21 MPa	Two-Part Polyurethane Infiltration (25 mm ID x 2 mm thick x 300 mm long hose)

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