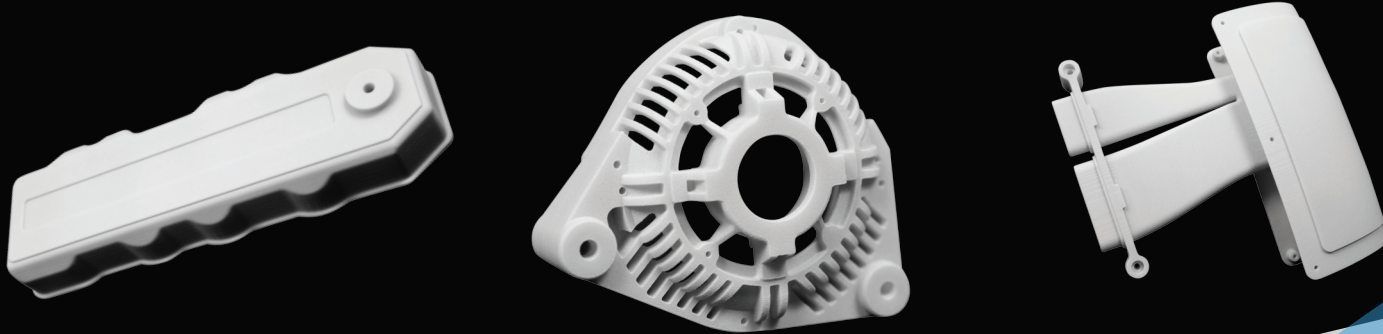




DuraForm® ProX® HST Composite

Composite material with high stiffness and thermal resistance for use with ProX SLS 500 product series.

General Properties

MEASUREMENT	CONDITION	METRIC	U.S.
Sintered Part Density	Internal	1.12 g/cm ³	1.12 g/cm ³

Mechanical Properties

MEASUREMENT	CONDITION	METRIC	U.S.
Tensile Strength, Ultimate	D638	44 MPa	6340 psi
Tensile Modulus	D638	4123 MPa	600 ksi
Elongation at Break	D638	4.3 %	4.3 %
Flexural Strength, Ultimate	D790	75 MPa	10 ksi
Flexural Modulus	D790	3430 MPa	860 psi
Hardness, Shore D	D2240	73	73
Impact Strength (notched Izod, 23°C) @ 0.12"	D256	55 J/m	1.0 ft-lb/in
Impact Strength (unnotched Izod, 23°C) @ 0.12"	D256	307 J/m	5.8 ft-lb/in

* All data generated using 3D Systems recommended recycle rates

Thermal Properties

MEASUREMENT	CONDITION	METRIC	U.S.
HDT @ 0.45 Mpa	D648	183°C	361°F
HDT @ 1.82 Mpa	D648	171°C	340°F
Coefficient of Thermal Expansion (0-50°C)	E831	153.4 µm/m-°C	47.4 µin/in-°F
Coefficient of Thermal Expansion (85-145°C)	E831	330.4 µm/m-°C	96.5 µin/in-°F
Thermal Conductivity	E1530	0.29 W/m-K	2.0 BTU-in/hr-ft ² -°F

Electrical Properties

MEASUREMENT	CONDITION	METRIC	U.S.
Volume Resistivity (Ω-cm)	D257	1.53x10 ¹⁵	1.53x10 ¹⁵
Surface Resistivity (Ω/sq)	D257	1.53x10 ¹⁵	1.53x10 ¹⁵
Dissipation Factor, 1 KHz	D150	0.049	0.049
Dielectric Constant, 1 KHz	D150	2.95	2.95
Dielectric Strength	D149	16.5 kV/mm	419 kV/in

Features

- Proprietary mineral-filled composite
- Exceptional rigidity
- Elevated temperature resistance

Benefits

- Functional prototypes can be tested in "real life" environments
- Complex end-use parts can be economically manufactured in low-to-medium volumes
- Excels in load-bearing applications at higher temperatures

Applications

UAV structural components, housings and enclosures, impellers, connectors, consumer sporting goods, automotive/under the hood, jigs and fixtures.



www.3dsystems.com

UK
Tel: +44 1442 282 600

**Germany, Scandinavia,
Eastern Europe, Middle East**
Tel: +49 6151 357 0

USA
Tel: +1 803.326.3900

Asia-Pacific
Melbourne Tel: +61 3 9819 4422
Sydney Tel: +61 2 9516 5571

Warranty/Disclaimer: The performance characteristics of these products may vary according to product application, operating conditions, or with end use. 3D Systems makes no warranties of any type, express or implied, including, but not limited to, the warranties of merchantability or fitness for a particular use.

© 2016 by 3D Systems, Inc. All rights reserved. Specifications subject to change without notice. 3D Systems, DuraForm and ProX are registered trademarks and the 3D Systems logo is a trademark of 3D Systems, Inc.