



ACCURA®

ACCUGEN™ MATERIAL

for the SLA® Viper si2™, 3500, 5000 & 7000 systems

SOLID IMAGING MATERIALS



Our most versatile material combines accuracy, green strength, and build chamber environment independence

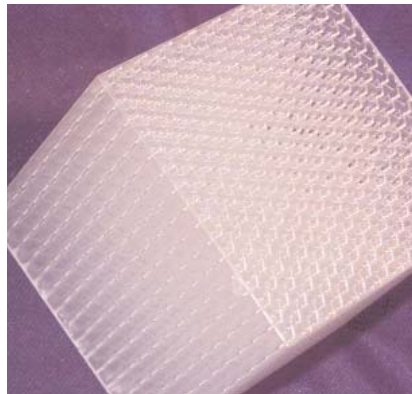
Enjoy trouble-free, high-yield builds. With its excellent recoating characteristics, accuGen material produces high yield in builds with excellent part quality.

By combining accuracy, humidity resistance, and green strength, 3D Systems' accuGen material will maximize your part building productivity — without the need to manage the build chamber environment.

Finish parts easily, without damage. accuGen material builds strong parts with easy-to-remove supports and a fine smooth surface; even thin walls are easily finished and machined. Industry-leading dimensional stability ensures accuracy and long lasting part usage.



Accelerate a wide variety of applications. Use accuGen material for prototype parts, master patterns, RTV mold inserts, flow testing and more.



Work with the SL leaders. accuGen material is among the latest in 3D Systems ongoing efforts to meet our customers' rapid product development demands. As the inventors of the stereolithography process, we're committed to continually evolving it — and to partnering with select vendors — in ways that help you bring better products to market faster than ever before.

Build process you can depend on 3D Systems invests time and highly trained resources to develop and optimize the build parameters to maximize accuracy, part quality and throughput for the Accura SL materials to reduce overall labor time.

Typical Applications

- Multi-purpose models
- RTV mold patterns
- Form/Fit/Function
- QuickCast™ patterns for investment casting
- Master patterns for secondary processes
- Prototype tooling

accuGen Nd Material

for the SLA® Viper si2™, 3500, 5000 & 7000 systems

Typical Properties

Liquid Material

MEASUREMENT	CONDITION	SOLID STATE Nd:YVO ₄
Appearance		Clear amber
Density	@ 25°C (77°F)	1.1 g/cm ³
Viscosity	@ 30°C (86°F)	500 cps
Penetration depth (Dp) ¹		4.4 mils *
Critical exposure (Ec) ¹		10.8 mJ/cm ² *
Tested build styles		QuickCast EXACT™ FAST™ ThinLayer™ (NA on Viper si2 system) EXACTHR (Viper si2 system only)

¹ Dp and Ec values are not reliable indicators on throughput as throughput is affected by overhead time, layer thickness and part geometry

* for the SLA 3500 system

Post-Cured Material ²

MEASUREMENT	CONDITION	90-MINUTE UV SLA 3500 SYSTEM
Tensile strength	ASTM D 638	67 MPa (9700 PSI)
Elongation at break	ASTM D 638	4.6 %
Tensile Modulus	ASTM D 638	3030 MPa (440 KSI)
Flexural strength	ASTM D 790	79 MPa (11500 PSI)
Flexural modulus	ASTM D 790	1930 MPa (280 KSI)
Impact Strength Notched Izod	ASTM D 256	17.1 J/m (0.32 ft - lbs/in)
Heat Deflection Temperature	ASTM D 648 @ 66 PSI @ 264 PSI	NA NA
Glass Transition, Tg	DMA, E''	73°C (163°F)
Coefficient of thermal expansion	ASTM E 831-93 TMA (T<Tg) TMA (T>Tg)	72 x 10 ⁻⁶ m/m °C 176 x 10 ⁻⁶ m/m °C
Hardness, Shore D	ASTM D 2240	82

² Mechanical properties reported are determined after conditioning of the parts at 50%RH and 23°C for a period greater than 72 hours as specified by ASTM standards. Mechanical properties of parts without this conditioning may be different from values reported.

NA denotes information not available

MATERIAL UPGRADE PROGRAM:

Upgrade your existing material and take advantage of a substantial discount off the regular purchase price with 3D Systems Material Upgrade Program. To place an order, contact your local sales office or in the US call toll free 800.889.2964.



the solid imaging companySM

3D Systems

26081 Avenue Hall
Valencia, CA 91355 USA
tel 661.295.5600 ext. 2882
fax 661.294.8406
toll free 888.337.9786
email moreinfo@3dsystems.com

www.3dsystems.com

Nasdaq: TDSC

FRANCE

telephone +33 1 69 35 17 17

GERMANY

telephone +49 6151 357 303

HONG KONG

telephone +852 2923 5077

ITALY

telephone +39 039 68 904 00

JAPAN

telephone +81 3 5451 1690

UK

telephone +44 1442 282600

© Copyright 2003 by 3D Systems, Inc. All rights reserved. Subject to change without notice. The 3D logo, Accura, and SLA are registered trademarks and 3D Systems, accuGen, FAST, ThinLayer, EXACT and QuickCast are trademarks of 3D Systems. "the solid imaging company" is a service mark of 3D Systems Inc.