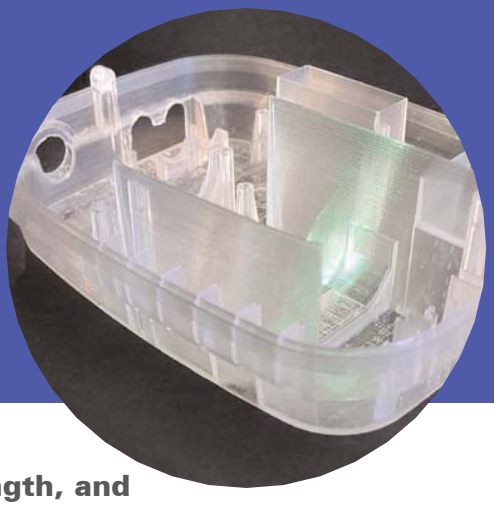
ACCURA®
ACCUGEN™ MATERIAL

for the SLA® 250 and 500 systems

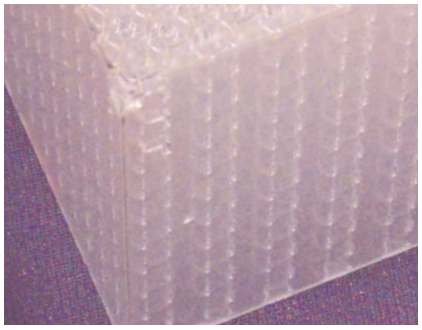


Our most versatile material combines accuracy, green strength, and build chamber environment independence

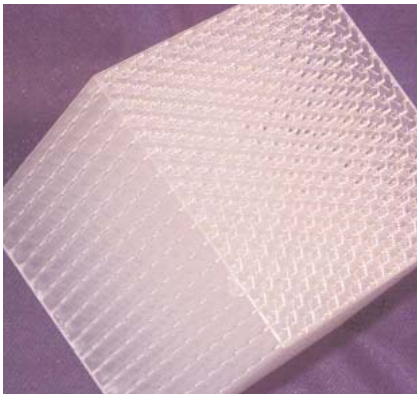
Enjoy trouble-free, high-yield builds. With its excellent recoating characteristics, accuGen material produces high yield in builds with excellent part quality.

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

3D Systems Accura material line consists of solid imaging materials for our stereolithography, laser sintering and multi-jet modeling technologies.

accuGen HC and Ar Material

for the SLA 250 and 500 systems

Typical Properties

Liquid Material

Measurement	Condition	HeCad and Argon Ion lasers
Appearance		Clear amber
Density	@ 25°C (77°F)	1.1 g/cm^3
Viscosity	@ 30°C (86°F)	485 cps
Penetration depth (Dp) [1]		3.92 mils *, 4.4 mils **
Critical exposure (Ec) [1]		7.27 mJ/cm^2 *, 7.4 mJ/cm^2 **
Tested build styles		EXACT™ QuickCast

[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 250 system

** for the SLA 500 system

Post-Cured Material [2]

Measurement	Condition	90-minute UV	
		SLA 250 system	SLA 500 system
Tensile strength	ASTM D 638	64 - 65 MPa (9240 - 9330 PSI)	55 - 57 MPa (7980 - 8190 PSI)
Elongation at break	ASTM D 638	4.6 - 5.6 %	5.8 - 7.8 %
Tensile Modulus	ASTM D 638	2840 - 3117 MPa (410 - 450 KSI)	2701 - 2978 MPa (390 - 430 KSI)
Flexural strength	ASTM D 790	91 - 92 MPa (13200 - 13400 PSI)	80 - 83 MPa (11500 - 11900 PSI)
Flexural modulus	ASTM D 790	2494 - 2632 MPa (360 - 380 KSI)	2147 - 2286 MPa (310 - 330 KSI)
Impact Strength Notched Izod	ASTM D 256	20.2 - 24.5 J/m (0.38 - 0.46 ft lbs/in)	20.2 - 21.3 J/m (0.38 - 0.4 ft - lbs/in)
Heat Deflection Temperature	ASTM D 648 @ 66 PSI @ 264 PSI	 59°C (138.2°F) 50°C (122°F)	 57°C (134.6°F) 51°C (123.8°F)
Glass Transition, Tg	DMA, E"	40°C (104°F)	40°C (104°F)
Coefficient of thermal expansion	ASTM E 831-93 TMA (T<Tg) TMA (T>Tg)	 69.5 x 10^{-6} m/m °C 107 x 10^{-6} m/m °C	 62 x 10^{-6} m/m °C 108 x 10^{-6} m/m °C
Hardness, Shore D	ASTM D 2240	86	84

[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.

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.

3D SYSTEMS

the solid imaging company SM

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