

MATERIAL SELECTION GUIDE FOR STEREOLITHOGRAPHY – SLA

MATERIAL PROPERTIES / CHARACTERISTICS

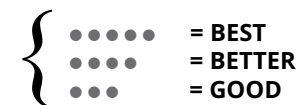
KEY APPLICATION AREAS

	Accuracy	HiTemp	Moisture Resistance	Optical Clarity	Durability	Color	Investment Casting/ QuickCast®	RTV/Master Patterns	Snap Fit Assemblies	General Purpose Models	Automotive/ Under the hood	Wind Tunnel Testing
POLYPROPYLENE-LIKE CLASS												
Accura® 25	●●●●		●●●		●●●●	White		●●●●	●●●●	●●●●		
Accura® PP White (SL 7811)	●●●		●●●●		●●●●	White		●●●	●●●●	●●●		
TOUGH/DURABLE CLASS												
Accura® Xtreme	●●●●		●●●		●●●●	Grey		●●●●	●●●●	●●●●		
Accura® Xtreme White 200	●●●●				●●●●●	White		●●●	●●●●●	●●●		
ABS-LIKE CLASS												
Accura® 55	●●●●		●●●		●●●	White		●●●	●●●	●●●●		
Accura® ABS White (SL 7810)	●●●		●●●●		●●●●	White		●●●	●●●	●●●		
Accura® ABS Black (SL 7820)	●●●		●●●●		●●●●	Black		●●●	●●●	●●●		
CLEAR CLASS												
Accura® ClearVue Free (SL 7870)	●●●		●●●●	●●●●	●●●●	Clear	●●●	●●●	●●●	●●●		
Accura® ClearVue	●●●		●●●●●	●●●●●	●●●●	Clear		●●●	●●●	●●●		
Accura® 60	●●●●		●●●	●●●	●●●	Clear-bluish	●●●●	●●●●	●●●	●●●●●		
CASTING CLASS												
Accura® CastPro	●●●●		●●●●●			Clear amber	●●●●●					
Accura® CastPro Free (SL 7800)			●●●			Clear amber	●●●●●					
HIGH TEMP & COMPOSITE CLASS												
Accura® Phoenix	●●●	●●●●	●●●	●●●		Clear/bluish					●●●●	
Accura® 48 HTR		●●●●	●●●			Clear amber					●●●●	
Accura® SL 5530		●●●●	●●●			Clear amber					●●●	
Accura® PEAK	●●●●	●●●●	●●●●			Translucent amber					●●●●●	●●●●
Accura® HPC	●●●●●	●●●	●●●●			White						●●●●●
Accura® CeraMAX	●●●●●	●●●●●	●●●●●			White						●●●●●
Accura® Bluestone	●●●●●	●●●●●	●●●●●			Blue						●●●●●

Ranking: Ratings are relative to other materials presented.

* Please see the product datasheet for more detailed information.

RATING SYSTEM



	Viscosity (cps) (@ 30 °C)	Flexural Modulus (MPa) ASTM D 790	Flexural Strength (MPa) ASTM D 790	Tensile Modulus (MPa) ASTM D 638	Tensile Strength (MPa) ASTM D 638	Elongation at Break ASTM D 638	Impact Strength (J/m) ASTM D 256	Heat Defl. Temp (°C) ASTM D 648
--	---------------------------------	---	--	--	---	--------------------------------------	--	---------------------------------------

POLYPROPYLENE-LIKE CLASS

Accura® 25	250	1380-1660	55-58	1590-1660	38	13-20 %	19-24	@ 66 PSI - 58-63 @ 264 PSI - 51-55
Accura® PP White (SL 7811)	210	1960-2060	64-66	2030-2230	40-42	7-13 %	42-59	@ 66 PSI - 47

TOUGH/DURABLE CLASS

Accura® Xtreme	250-300	1520-2070	52-71	1790-1980	33-44	14-22 %	35-52	@ 66 PSI - 62 @ 264 PSI - 54
Accura® Xtreme White 200	650-750	2350-2550	75-79	2300-2630	45-50	7-20 %	55-66	@ 66 PSI - 47 @ 264 PSI - 42

ABS-LIKE CLASS

Accura® 55	155-185	2690-3240	88-110	3200-3380	63-68	5-8 %	12-22	@ 66 PSI - 55-58 @ 264 PSI - 51-53
Accura® ABS White (SL 7810)	210	2040-2120	74-76	2290-2400	46-48	8-14 %	24-47	@ 66 PSI - 51
Accura® ABS Black (SL 7820)	210	2260-2370	75-78	1890-2440	45-47	6-13 %	39-56	@ 66 PSI - 51

CLEAR CLASS

Accura® ClearVue Free (SL 7870)	180	1940-2250	73-76	1920-2010	38-42	10-22 %	23-51	@ 66 PSI - 48 @ 264 PSI - 41
Accura® ClearVue	235-260	1980-2310	72-84	2270-2640	46-53	3-15 %	40-58	@ 66 PSI - 51 @ 264 PSI - 50
Accura® 60	150-180	2700-3000	87-101	2690-3100	58-68	5-13 %	15-25	@ 66 PSI - 53-55 @ 264 PSI - 48-50

CASTPRO CLASS

Accura® CastPro	240-260	2310-2340	82-84	2490-2620	52-53	4.1-8.3 %	43-49.5	@ 66 PSI - 51 @ 264 PSI - 50
Accura® CastPro Free (SL 7800)	205	2200-2480	81-83	1940-2350	45-48	9-19 %	35-50	@ 66 PSI - 62

HIGH TEMP & COMPOSITE CLASS

Accura® Phoenix	120-130	2140-2330	96-100	2340-2640	45-61	3-5 %	13-19	@ 66 PSI - 137* @ 264 PSI - 103*
Accura® 48 HTR	200-250	2760-3400	105-118	2800-3980	64-67	4-7 %	22-29	@ 66 PSI - 130 ‡ @ 264 PSI - 110 ‡
Accura® SL 5530	210-270	2620-3240	63-87	2889-3144	57-61	3.8-4.4 %	21	@ 66 PSI - 70-85 ‡ @ 264 PSI - 55-58 ‡
Accura® PEAK	605	4180-4790	77-126	4220-4790	57-78	1.3-2.5 %	21.3-27.3	@ 66 PSI - 153** @ 264 PSI - 124**
Accura® HPC	700-1000	8700-10200	137-157	9000-9700	66-89	0.8-1.9 %	14-17	@ 66 PSI - TBD @ 264 PSI - TBD
Accura® CeraMAX	1500-2000	8270-8370	137-145	9460-9680	78-87	1.0-1.5 %	14.5-17.9	@ 66 PSI - 220 ** @ 264 PSI - 97**
Accura® Bluestone	1200-1800	8300-9800	124-154	7600-11700	66-68	1.4-2.4 %	13-17	@ 66 PSI - 267-284**

*After 2 hour 80C thermal Postcure
** After 2 hour 120C thermal Postcure

‡ After 2 hour 160C thermal Postcure (note- applies to 5530 and Accura 48)

www.3dsystems.com



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.

© 2017 by 3D Systems, Inc. All rights reserved. Specifications subject to change without notice. 3D Systems, Accura and QuickCast are registered trademarks and the 3D Systems logo is a trademark of 3D Systems, Inc.