

# MATERIAL SELECTION GUIDE FOR STEREOLITHOGRAPHY – SLA

## MATERIAL PROPERTIES / CHARACTERISTICS

## KEY APPLICATION AREAS

Accuracy	HiTemp	Moisture Resistance	Optical Clarity	Durability	Color
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Investment Casting/QuickCast®	RTV/Master Patterns	Snap Fit Assemblies	General Purpose Models	Automotive/Under the hood	Wind Tunnel Testing
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### 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

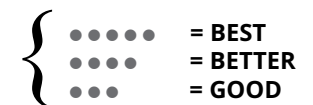
Accura® Phoenix	●●●	●●●●	●●●	●●●		Clear/bluish
Accura® 48 HTR		●●●●	●●●			Clear amber
Accura® SL 5530		●●●●	●●●			Clear amber
Accura® PEAK	●●●●	●●●●	●●●●			Translucent amber
Accura® HPC	●●●●●	●●●	●●●●			White
Accura® CeraMAX	●●●●●	●●●●●	●●●●●			White
Accura® Bluestone	●●●●●	●●●●●	●●●●●			Blue

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**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
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**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)

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