

# Materials Selection Guide for Stereolithography – SLA

## MATERIAL PROPERTIES / CHARACTERISTICS

## KEY APPLICATION AREAS

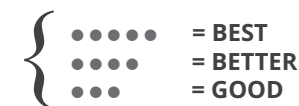
	MATERIAL PROPERTIES / CHARACTERISTICS						KEY APPLICATION AREAS					
	Accuracy	HiTemp	Moisture Resistance	Optical Clarity	Durability	Color	Investment Casting/QuickCast®	RTV/Master Patterns	Snap Fit Assemblies	General Purpose Models	Automotive/Under the hood	Wind Tunnel Testing
<b>POLYPROPYLENE-LIKE CLASS</b>												
Accura 25 <sup>1</sup>	●●●●		●●●		●●●●	White		●●●●	●●●●	●●●●		
Accura PP White (SL 7811)	●●●		●●●●		●●●●	White		●●●	●●●●	●●●		
<b>TOUGH/DURABLE CLASS</b>												
Accura Xtreme <sup>1</sup>	●●●●		●●●		●●●●	Grey		●●●●	●●●●	●●●●		
Accura Xtreme White 200 <sup>1</sup>	●●●●				●●●●●	White		●●●	●●●●●	●●●		
<b>ABS-LIKE CLASS</b>												
Accura 55	●●●●		●●●		●●●	White		●●●	●●●	●●●●		
Accura ABS White (SL 7810)	●●●		●●●●		●●●●	White		●●●	●●●	●●●		
Accura ABS Black (SL 7820) <sup>1</sup>	●●●		●●●●		●●●●	Black		●●●	●●●	●●●		
<b>CLEAR CLASS</b>												
Accura ClearVue Free (SL 7870)	●●●		●●●●	●●●●	●●●●	Clear		●●●	●●●	●●●		
Accura ClearVue <sup>1</sup>	●●●		●●●●●	●●●●●	●●●●	Clear		●●●	●●●	●●●		
Accura 60	●●●●		●●●	●●●	●●●	Clear-bluish	●●●●	●●●●	●●●	●●●●●		
<b>CASTING CLASS</b>												
Accura CastPro	●●●●		●●●●●			Clear amber	●●●●●					
Accura Fidelity <sup>1</sup>	●●●●		●●●●●	●●●		Clear	●●●●●					
<b>HIGH TEMP &amp; COMPOSITE CLASS</b>												
Accura Phoenix <sup>1</sup>	●●●	●●●●	●●●	●●●		Clear/bluish				●●●●		
Accura 48 HTR <sup>1</sup>		●●●●	●●●			Clear amber				●●●●		
Accura SL 5530		●●●●	●●●			Clear amber				●●●		
Accura PEAK	●●●●	●●●●	●●●●			Translucent amber				●●●●●	●●●●	
Accura HPC	●●●●●	●●●	●●●●			White					●●●●●	
Accura Bluestone	●●●●●	●●●●●	●●●●●			Blue					●●●●●	

**Ranking:** Ratings are relative to other materials presented.

Please see the product datasheet for more detailed information and check the SLA technical specifications sheet for printer compatibility.

<sup>1</sup> Material compatible with ProJet 6000 and 7000 SLA printers.

**RATING SYSTEM**


  
 ●●●●● = BEST  
 ●●●● = BETTER  
 ●●● = GOOD

	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, Notched (J/m) ASTM D 256	Heat Defl. Temp (°C) ASTM D 648
<b>POLYPROPYLENE-LIKE CLASS</b>								
Accura 25 <sup>1</sup>	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
<b>TOUGH/DURABLE CLASS</b>								
Accura Xtreme <sup>1</sup>	250-300	1520-2070	52-71	1790-1980	33-44	14-22 %	35-52	@ 66 PSI - 62 @ 264 PSI - 54
Accura Xtreme White 200 <sup>1</sup>	650-750	2350-2550	75-79	2300-2630	45-50	7-20 %	55-66	@ 66 PSI - 47 @ 264 PSI - 42
<b>ABS-LIKE CLASS</b>								
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) <sup>1</sup>	210	2260-2370	75-78	1890-2440	45-47	6-13 %	39-56	@ 66 PSI - 51
<b>CLEAR CLASS</b>								
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 <sup>1</sup>	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
<b>CASTING CLASS</b>								
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 Fidelity <sup>1</sup>	117	2400	124	2790	65	5-11 %	25-39	@ 66 PSI - 63 @ 264 PSI - 55
<b>HIGH TEMP &amp; COMPOSITE CLASS</b>								
Accura Phoenix <sup>1</sup>	120-130	2140-2330	96-100	2340-2640	45-61	3-5 %	13-19	@ 66 PSI - 137* @ 264 PSI - 103*
Accura 48 HTR <sup>1</sup>	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 - 170-250 ‡ @ 264 PSI - 110-120 ‡
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 - 250** @ 264 PSI - 87**
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 80 °C thermal Postcure

\*\* After 2 hour 120 °C thermal Postcure

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

<sup>1</sup> Material compatible with Projet 6000 and 7000 SLA printers.

Properties based on materials processed on ProX large frame SLA printers. Not all materials will build in all build modes and on every printer model. Check with your local sales representative to verify that the combination you need is available.

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