

Accura® Stereolithography (SLA®) Material Selection Guide



	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/Blue	●●●●	●●●●	●●●	●●●●●		
Casting Class												
Accura CastPro	●●●●		●●●●●			Clear Amber	●●●●●					
Accura CastPro Free (SL 7800)			●●●			Clear Amber	●●●●●					
High Temp & Composite Class												
Accura 48 HTR		●●●●	●●●			Clear Amber					●●●●	
Accura SL 5530		●●●●	●●●			Clear Amber					●●●	
Accura PEAK	●●●●	●●●●	●●●●			Translucent Amber					●●●●●	●●●●
Accura CeraMAX	●●●●●	●●●●●	●●●●●			White						●●●●●
Accura Bluestone	●●●●●	●●●●●	●●●●●			Blue						●●●●●

Ranking: A five-star rating is superior- ratings are relative to other materials within the SAME product category.

RATING SYSTEM  = BEST
= BETTER
= GOOD



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	Viscosity	Flex Modulus (KSI)	Flexural Strength (PSI)	Tensile Modulus (KSI)	Tensile Strength (PSI)	Elongation at Break	Impact Strength (ft-lbs/in)	Heat Defl. Temp
	(@ 86° F)	ASTM D 790	ASTM D 790	ASTM D 638	ASTM D 638	ASTM D 638	ASTM D 256	ASTM D 648
Polypropylene-Like Class								
Accura 25	250	200-240	7,960-9,410	230-240	5,450-5,570	13-20%	0.4	@ 66 PSI - 136-145° F @ 264 PSI - 124-131° F
Accura PP White (SL 7811)	210	284-299	9,280-9,570	294-323	5,800-6,090	7-13%	0.78-1.10	@ 66 PSI - 117° F
Tough/Durable Class								
Accura Xtreme	250-300	220-300	7,540-10,300	260-287	5,510-6,380	14%-22%	0.66-0.98	@ 66 PSI - 144° F @ 264 PSI - 129° F
Accura Xtreme White 200	650-750	341-370	10,880-11,460	334-381	6,530-7,250	7-20%	1.03-1.24	@ 66 PSI - 117° F @ 264 PSI - 108° F
ABS-Like Class								
Accura 55	155-185	390-470	12,830-15,920	460-490	9,200-9,850	5-8%	0.2-0.4	@ 66 PSI - 131-136° F @ 264 PSI - 123-127° F
Accura ABS White (SL 7810)	210	296-307	10,730-11,020	332-348	6,670-6,960	8-14%	0.45-0.88	@ 66 PSI - 124° F
Accura ABS Black (SL 7820)	210	328-344	10,875-11,310	274-354	6,525-6,815	6-13%	0.73-1.05	@ 66 PSI - 124° F
Clear Class								
Accura ClearVue Free (SL 7870)	180	281-326	10,585-11,020	278-291	5,470-6,050	10%-22%	0.43-0.96	@ 66 PSI - 118° F @ 264 PSI - 106° F
Accura ClearVue	235-260	287-335	10,400-12,200	329-383	6,700-7,700	3-15%	0.7-1.1	@ 66 PSI - 124° F @ 264 PSI - 122° F
Accura 60	150-180	392-435	12,620-14,650	390-450	8,410-9,860	5-15%	0.3-0.5	@ 66 PSI - 127-131° F @ 264 PSI - 118-122° F
CastPRO Class								
Accura CastPro	240-260	335-339	11,890-12,180	361-380	7,540-7,690	4.1-8.3%	0.8-0.92	@ 66 PSI - 124° F @ 264 PSI - 122° F
Accura CastPro Free (SL 7800)	205	319-360	11,750-12,035	281-341	6,530-6,960	9-19%	0.66-0.94	@ 66 PSI - 144° F
High Temp & Composite Class								
Accura 48 HTR	200-250	400-493	15,200-17,100	406-577	9,280-9,720	4-7%	0.4-0.5	@ 66 PSI - 149° F @ 264 PSI - 135° F
Accura SL 5530	210-270	380-470	9,100-12,600	419-456	8,300-8,900	3.8-4.4%	21.0	@ 66 PSI - 158-185° F @ 264 PSI - 131-136° F
Accura PEAK	605	606-695	11,170-18,380	612-695	8,270-11,320	1.3-2.5%	0.4-0.5	@ 66 PSI - 307° F @ 264 PSI - 225° F
Accura CeraMAX	1,500-2,000	1,200-1,210	19,000-21,000	1,370-1,400	11,300-12,600	1.0-1.5 %	0.27-0.34	@ 66 PSI - 428° F @ 264 PSI - 207° F
Accura Bluestone	1,200-1,800	1,200-1,417	18,000-22,300	1,100-1,700	6,900-9,800	1.4-2.4%	0.24-0.32	@ 66 PSI - 149-151° F @ 264 PSI - 149° F

MATERIAL ORDERING

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	Viscosity	Flexural Modulus (MPa)	Flexural Strength (MPa)	Tensile Modulus (MPa)	Tensile Strength (MPa)	Elongation at Break	Impact Strength (J/m)	Heat Defl. Temp
	(@ 30° C)	ASTM D 790	ASTM D 790	ASTM D 638	ASTM D 638	ASTM D 638	ASTM D 256	ASTM D 648
Polypropylene-Like Class								
Accura 25	250	1380-1660	55-58	1590-1660	38	13-20%	19-24	@ 66 PSI - 58-63° C @ 264 PSI - 51-55° C
Accura PP White (SL 7811)	210	1960-2060	64-66	2030-2230	40-42	7-13%	42-59	@ 66 PSI - 47° C
Tough/Durable Class								
Accura Xtreme	250-300	1520-2070	52-71	1790-1980	33-44	14-22%	35-52	@ 66 PSI - 62° C @ 264 PSI - 54° C
Accura Xtreme White 200	650-750	1380-1660	75	1590-1660	45-50	7%	55	@ 66 PSI - 47° C @ 264 PSI - 42° C
ABS-Like Class								
Accura 55	155-185	2690-3240	88-110	3200-3380	63-68	5-8%	12-22	@ 66 PSI - 55-58° C @ 264 PSI - 51-53° C
Accura ABS White (SL 7810)	210	2040-2120	74-76	2290-2400	46-48	8-14%	24-47	@ 66 PSI - 51° C
Accura ABS Black (SL 7820)	210	2260-2370	75-78	1890-2440	45-47	6-13%	39-56	@ 66 PSI - 51° C
Clear Class								
Accura ClearVue Free (SL 7870)	180	1940-2250	73-76	1920-2010	38-42	10-22%	23-51	@ 66 PSI - 48° C @ 264 PSI - 41° C
Accura ClearVue	235-260	1980-2310	72-84	2270-2640	46-53	3-15%	40-58	@ 66 PSI - 51° C @ 264 PSI - 50° C
Accura 60	150-180	2700-3000	87-101	2690-3100	58-68	5-13%	15-25	@ 66 PSI - 53-55° C @ 264 PSI - 48-50° C
CastPRO Class								
Accura CastPro	240-260	2310-2340	82-84	2490-2620	52-53	4.1-8.3%	43-49.5	@ 66 PSI - 51° C @ 264 PSI - 50° C
Accura CastPro Free (SL 7800)	205	2200-2480	81-83	1940-2350	45-48	9-19%	35-50	@ 66 - 62° C
High Temp & Composite Class								
Accura 48 HTR	200-250	2760-3400	105-118	2800-3980	64-67	4-7%	22-29	@ 66 PSI - 65° C @ 264 PSI - 57° C
Accura SL 5530	210-270	2620-3240	63-87	2889-3144	57-61	3.8-4.4%	21	@ 66 PSI - 70-85° C @ 264 PSI - 55-58° C
Accura PEAK	605	4180-4790	77-126	4220-4790	57-78	1.3-2.5%	21.3-27.3	@ 66 PSI - 78° C @ 264 PSI - 59° C
Accura CeraMAX	1500-2000	8270-8370	137-145	9460-9680	78-87	1.0-1.5%	14.5-17.9	@ 66 PSI - 148° C @ 264 PSI - 95° C
Accura Bluestone	1200-1800	8300-9800	124-154	7600-11700	66-68	1.4-2.4%	13-17	@ 66 PSI - 65-66° C @ 264 PSI - 65° C

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