

# STAR RAPID

## Star's Common VC Material

		Axson / Sika	Axson / Sika	Hel-Cast	Axson / Sika	Axson / Sika	Axson / Sika	Axson / Sika	Hel-Cast	Axson / Sika	Axson / Sika
		UP 4280	PX 223-HT	8263	PX 527	UPX 5210	UP 5690	UPX 8400	T0387	ESSL 296	HY-E635
		ABS	ABS	ABS	ABS / PC	PMMA	PP / HDPE	Rubber	Rubber	Silicone	Platinum Cured Silicone
Properties	Soft										
	Self-Right										
	Rigid										
	High Temp.		High Temp 200 (1500)								
	Flame Retardant			UL94 V0 (Self-Extinguishing)							
	Food Grade										
UV Stable											
Part Color @ 23°C	Off-White						White	Off-White			
	Light-Beige						Black	Black			
Part Color Matching	Rating:	1	0	1	3	2	1	1	2	1	0
	0 - N/A	Due to the natural 'off-white' color of the base material, we CANNOT achieve BRIGHT or LIGHT colors, e.g. bright blue, bright purple, light blue and light purple.	The material color is 'black', cannot mix colors.	Due to the natural 'milky-white' color of the base material, we CANNOT achieve BRIGHT or LIGHT colors, e.g. bright blue, bright purple, light blue and light purple.	These material colors are clear therefore we can easily match Pantone® references.	Due to the natural 'milky-white' color of the base material, we CANNOT achieve BRIGHT or LIGHT colors, especially blue and purple.	These materials are 3 component materials. The C component has a natural 'pale-yellow' color so we CANNOT achieve BRIGHT or LIGHT colors, e.g. bright blue, bright purple, light blue and light purple.	Due to the natural 'milky-white' color of the base material, we CANNOT achieve BRIGHT or LIGHT colors, e.g. bright blue, bright purple, light blue and light purple.	Pantone® matches are possible depends on the difficulty level of the requested color.	Due to the natural 'pale-yellow' color of the base material, we CANNOT achieve BRIGHT or LIGHT colors, e.g. bright blue, bright purple, light blue and light purple.	Very rare to mix with color due to the pigment we used is not food grade.
	1 - FAIR										
	2 - GOOD	Some Pantone® matches are possible depends on the difficulty level of the requested color.		Some Pantone® matches are possible depends on the difficulty level of the requested color.	For matching bright, vivid or pastel colors these materials are best suited but depends on difficulty level of the requested color.	Pantone® matches are possible depends on the difficulty level of the requested color.	Also, as we change the hardness of the material by changing the ratio of the C component, the color will change.				
	3 - EXCELLENT										
	Shore Hardness @ 23°C (Shore D)	80D	80D	80D	80D	80D	80D-90D	40A-50A	60A-70A	60A	20A
	Density @ 23°C (g/cm³)	1.12	1.14	1.2	1.15	1.1	1.13	-	1.14-1.16	1.08-1.10	1.2
	Tensile Strength (MPa)	80	80	80	75	60-70	20-30	0-20	2-40	0.5	2.8
	Flexural Strength (MPa)	100	80	-	117	90-95	20-30	-	-	-	-
	Flexural Modulus (MPa)	2000	2000	2000	2000	2000-2200	900-1000	-	-	-	-
Heat Deflection Temp (°C)	100	-	80	80	-	-	-	-	-	-	
Glass Transition Temp (°C)	-	120	-	80	80	-	-	-	-	-	
Thermal Conductivity (W/mK)	-	-	-	-	100	-	-	-	-	-	
Dimensional Change (%)	17	15	13	13	10-20	0-30	-	-	300	40000	
Shrinkage (%)	0.3	-	0.3	-	0.4-0.6	0.35	-	-	-	-	
Can part be Glass Fiber filled? (Yes/No) (If Yes, specify the fiber type and required high speed & temperature)	YES (+ GF10)	YES (+ GF10)	YES (+ GF10)	YES (+ GF10)	YES (+ GF10)	YES (+ GF10)	YES (+ GF10)	YES (+ GF10)	YES (+ GF10)	YES (+ GF10)	
Resin	Specific gravity @ 23°C (g/cm³)	Part A: 1.06 Part B: 1.17	1.17 1.12	1.2 1.19	1.15 1.1	1.06 1.01	1.06 1.15	1.06 1.2	0.99 1.19	1.08 1.08	-
	Viscosity @ 23°C (mPa.s)	Part A: 700 Part B: 170	1100 300	1000 100	300 700	100-150 400-600	1000-1500 100-100	300 400	450 200	80000 2000	40000 2000
	Mixing ratio by weight (A:B:C)	100-200	100-30	100-150	100-50	100-100	100-100-0-50	100-100-0-200	100-50-0-100	100-10	10:1
	Mixture pot life at 100g/min	4-5	6-7	5	4	-	10-15	14-16	5	-	-
Processing Time @ 100-150°C (min)	30-45	-	30	45	30-45	30-45	-	-	12-18	-	