



product
information

6S00 SERIES

HIGH PERFORMANCE ACRYLIC URETHANE
1.0, 2.8 AND 3.5 LBS/GAL VOC

Cardinal's 6S00 series is a high performance two component low VOC solvent borne Acrylic Polyurethane intermix system designed specifically for the sign paint industry. The system uses bright clean exterior grade pigments with excellent weathering properties. Chemical resistance, flexibility, abrasion resistance and excellent weathering are the key properties. The coating can be applied at three different VOC ranges; 1.0, 2.8 and 3.5 lbs/gal by changing the hardeners and reducers. A system to meet all VOC needs.

TYPICAL USES:

- Sign Industry for use on plastics and metals
- Intermix systems
- Outdoor applications
- General Industrial

BENEFITS:

- Versatile VOC ranges
- Excellent chemical and solvent resistance
- Meets SCAQMD rule 1145
- Excellent Weathering
- Pantone color reference code
- RoHS / WEEE compliant

TYPE: Solvent based Acrylic Polyurethane.

COMPONENTS: Two.

COLOR: Full range including Pantone and Fed. Std.

GLOSS: Full range.

COVERAGE: At 1.0 mil DFT, 100% transfer efficiency(TE)

Mixed paint, 1.0 lbs/gal : 592 ft²/gal.

Calculation: 1604 ft²/gal x % volume solids x TE ÷ DFT

MIX RATIOS & VOC INFORMATION: (Full gloss and semi gloss)

Paint	6SLVH Hardener	6SHVH Hardener	HP-439 Exempt reducer	1600-02 VOC Reducer	VOC lbs/gal
3 Parts	1 Part	-	1 Part	-	1
3 Parts	1 Part	-	-	1 Part	2.8
3 Parts	-	1 Part	-	1 Part	3.5

VOLUME SOLIDS:

6S00 base.....45-55%

6S hardener40%

Mixed with reducer.....35-41%

FLASH POINT: > 4 °F TCC

VISCOSITY: Will vary depending on color and gloss at a given VOC. At 1.0 lbs/gal, most colors will be in the 25"-35" #2 Zahn range.

SPRAY-ABLE POT LIFE: 1-2 hours accelerated and 2-3 hours not accelerated at 1.0 lbs. VOC/gal

RECOMMENDED DFT: 1.5 – 2.5 mils (depending on color)

APPLICATION CONDITIONS:

- Temperature- Apply coating within the range 55-100 F
- Relative Humidity- not recommended to apply in conditions greater than 85%
- Substrate temperature- 5° above the dew point and a minimum of 55°F

If coating is not applied within these conditions then the cured coating properties may be representative.

EQUIPMENT:

- Conventional- 40-50 psi / 0.055 fluid tip
- HVLP- 10 psi at air cap/ 0.055 fluid cap
- Pressure pot- 10-15 psi/ 0.046 fluid cap

SHELF LIFE: 1 year from date of manufacture in factory sealed container.

DRY TIMES:

AIR DRY (1.5 mil dft, 75 F @ 50% RH)	
Dust free	15 min.
with 1oz/gal EL-005 accelerator	15 min.
Dry to touch	45 min.
with 1oz/gal EL-005 accelerator	30 min.
Dry to recoat	30 min.
with 1oz/gal EL-005 accelerator	20 min.
Dry to handle	90 min.
with 1oz/gal EL-005 accelerator	60 min.

FORCE DRY (1.5 mil, 180F)	
Dry to touch	10 min.
with 1oz/gal EL-005 accelerator	10 min.
Dry to recoat	15 min.
with 1oz/gal EL-005 accelerator	10 min.
Dry to handle	20 min.
with 1oz/gal EL-005 accelerator	15 min.
Allow the coating to flash for 20-30 minutes before placing in the oven to prevent solvent popping.	
Do not expose coating to temperature greater than 190F	

LIST OF BASES & CLEARS:

<u>Semi Gloss</u>	<u>Color</u>	<u>Gloss</u>
6S03-01	Jet Black	6S09-01
6S03-08	Lamp Black	6S09-08
6S03-10	White	6S09-10
6S03-23	Green shade yellow	6S09-23
6S03-26	Red shade yellow	6S09-26
6S03-27	Yellow oxide	6S09-27
6S03-28	Trans. Yellow oxide	6S09-28
6S03-31	Red oxide	6S09-31
6S09-32	Trans. Red oxide	6S09-32
6S03-33	Yellow shade red	6S09-33
6S03-34	Blue shade red	6S09-34
6S03-38	Magenta	6S09-38
6S03-39	Violet	6S09-39
6S03-42	Green shade blue	6S09-42
6S03-43	Red shade Blue	6S09-43
6S03-51	Green	6S09-51
6S03-60	Orange	6S09-60
6S23-83	Sparkle silver	6S09-83
6S23-92	fine silver	6S09-92
6S23-98	medium silver	6S09-98
6S73-1	Clear	6S79-1
6S73-3010	Anti Tarnish Clear	6S79-3010

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So. El Monte, CA 1329 Potrero Ave. 91733 (323) 283-9335 (626) 444-9274 Fax (626) 444-0382

www.cardinalpaint.com

NO WARRANTY EXPRESSED OR IMPLIED, ACCEPTABILITY TO BE DETERMINED BY USER, SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

6S00- SERIES

PHYSICAL PROPERTIES: All testing conducted on primer sanded Aluminum and steel panels that were air dried for seven days at 75F@50%RH.

TEST	METHOD	PARAMETERS	RESULT
Hardness	ASTM D3363	Pencil	2H
Abrasion	ASTM D4060	CS 17, 2 Kg, 1000 Cycles	Less than 100 mg
Adhesion	ASTM D3359	Cross-hatch tape	0% failure
Flexibility	ASTM D1737	1/8" mandrel	No cracking
Salt Spray	ASTM B117	2000 hours	No effect
UV Resistance	ASTM G53	2000 hours QUV A	> 90% gloss retention
Impact	ASTM D2794	Direct Reverse	140 Direct, 80 Reverse
Humidity	ASTM D2247	500 hrs	No effect
Solvent Resistance		MEK 100 rubs	No effect
	ASTM D4752	IPA 200 rubs	No effect
Chemical & Stain Resistance	ASTM D1308 30 min. spot	A – IPA, hydrogen peroxide, 409®, toluene, hydrochloric acid, textile spirits, amyl acetate, trichloroethylene, methanol, ethylene dichloride, lacquer thinner, xylene, ethanol, ammonia, tap water, Lanolin lotion, coffee, tea.	
		B – Acetone, MEK.	
		A: No effect	C – 50% sulfuric acid, 2.5N sodium hydroxide
		B: Slight dulling	
		C: Moderate effect	
		D: Discolored & softened	

RECOMMENDED COATING SUBSTRATE SYSTEMS:

ALUMINUM:

- Prep**
- Abrade surface with 220 or 400 grit sandpaper.
 - Clean with W-500A or W-303A metal cleaning solution.
- Primer**
- 7760-10 epoxy primer (2-3 dry mils/ 6-7 wet mils)
 - 7260-4702 Fast dry primer (2-3 dry mils/6-7 wet mils)
 - 6460-4257 Polyester Spray fill (2-3 dry mils/ 4-5 wet mils)
 - 7065-10 High build epoxy (2-3 dry mils/ 4-5 wet mils)
 - 4860-52 Etch primer (0.2-0.5 dry mils/ 5-10 wet mils)
- Adhesion Promoter for clear coating Aluminum**
- SSAP-100 Metal adhesion promoter (0.15-0.30 dry mils/ 2-4 wet mils)
- Topcoat**
- 6S00 series semi or gloss pigmented (1.5-2.5 dry mils depending on color)
 - 6S00 series semi or gloss clear (2.0 dry mils)

STEEL:

- Prep**
- Abrade surface with 220 or 400 grit sandpaper.
 - Clean with W-500A or W303A metal cleaning solution.
- Primer**
- 7760-10 epoxy primer (2-3 dry mils/ 6-7 wet mils)
 - 7260-4702 Fast dry primer (2-3 dry mils/6-7 wet mils)
 - 6460-4257 Polyester Spray fill (2-3 dry mils/ 4-5 wet mils)
 - 7065-10 High build epoxy (2-3 dry mils/ 4-5 wet mils)
 - 4860-52 Etch primer (0.2-0.5 dry mils/ 5-10 wet mils)
- Topcoat**
- 6S00 series semi or gloss pigmented (1.5-2.5 dry mils depending on color)

BRASS/COPPER:

- Prep**
- Once substrate is polished spray with W-900 anti tarnish solution prior to coating
- Adhesion Promoter**
- SSAP-100 Metal adhesion promoter (0.15-0.30 dry mils/ 2-4 wet mils)
- Topcoat**
- 6S00- series anti-tarnish clear coats 6S73-3010 and 6S79-3010 (2.0 dry mils)

GLASS:

- Prep**
- Clean surface of glass with glass cleaner
- Adhesion Promoter**
- W-805-A glass adhesion promoter (part A).
 - W-805-B glass adhesion promoter (part B).
- Primer**
- 7260-4702 Fast dry primer (1.5-2.0 dry mils/3-6 wet mils). Not compliant to SCAQMD rule 1145.
- Topcoat**
- 6S00 series semi or gloss pigmented (1.5-2.5 dry mils depending on color)
 - 6S00 series semi or gloss clear (2.0 dry mils)

PLASTICS: Polycarbonate, Polyurethane, ABS, Acrylic, PVC & TPO.

- Prep**
- If necessary remove any mold release with Cardinal W-502P plastics cleaner or acetone if permitted.
 - Light sanding with 400 grit sandpaper will help adhere to difficult substrates.
- Adhesion Promoter**
- W-700A plastics adhesion promoter for polyolefin type plastics
 - SSAP-200 tie coat adhesion promoter for difficult to adhere plastics.
- Primer**
- 6760-E12426 Acrylic primer (1.5-2.0 dry mils/ 3-6 wet mils). Compliant to SCAQMD rule 1145.
 - 7260-4702 Fast dry primer (1.5-2.0 dry mils/3-6 wet mils). Not compliant to SCAQMD rule 1145.
 - 6460-4257 Polyester spray fill primer (1.5-2.0 dry mils/ 2-4 wet mils). Not compliant to SCAQMD rule 1145.
- Topcoat**
- 6S00 series semi or gloss pigmented (1.5-2.5 dry mils depending on color)
 - **NOTE: check adhesion of primer or adhesion promoter before top coating.**

WOOD:

- Prep**
- Sand surface with 220 or 400 grit sandpaper
- Primer**
- 6760-E12426 Acrylic primer (2-3 dry mils/ 3-6 wet mils)
 - 6460-4525 Polyester spray fill primer (1.5-2.0 dry mils/ 2-4 wet mils).
- Topcoat**
- 6S00 series semi or gloss pigmented (1.5-2.5 dry mils depending on color)
 - 6S00 series semi or gloss clear (2.0 dry mils)

MASONRY:

- Prep**
- Acid wash surface and allow to dry before coating
- Primer**
- 7760-10 epoxy primer (2-3 dry mils/ 6-7 wet mils)
 - 7260-4702 Fast dry primer (2-3 dry mils/6-7 wet mils)
 - 6460-4525 Polyester Spray fill (2-3 dry mils/ 4-5 wet mils)
 - 7065-10 High build epoxy (2-3 dry mils/ 4-5 wet mils)
- Topcoat**
- 6S00 series semi or gloss pigmented (1.5-2.5 dry mils depending on color)

FIBERGLAS:

- Prep**
- Abrade surface with 220 or 400 grit sandpaper.
 - Clean with W-502P metal cleaning solution.
- Primer**
- 6760-E12426 Acrylic primer (1.5-2.0 dry mils/ 3-6 wet mils). Compliant to SCAQMD rule 1145.
 - 7260-4702 Fast dry primer (1.5-2.0 dry mils/3-6 wet mils). Not compliant to SCAQMD rule 1145.
 - 6460-4525 Polyester spray fill primer (1.5-2.0 dry mils/ 2-4 wet mils). Not compliant to SCAQMD rule 1145.
- Topcoat**
- 6S00 series semi or gloss pigmented (1.5-2.5 dry mils depending on color)

ADDITIONAL PRODUCT INFORMATION:

REDUCERS FOR 6S00-SERIES

- 1600-01 fast reducer
- 1600-02 medium reducer
- 1600-03 slow reducer
- HP-439 Exempt reducer

ADDITIVES TO COMPLIMENT 6S00-SERIES

- 6SFP-100 zero VOC flattening paste
- EL-005 Accelerator
- 6SLA-100 Anti crater additive
- SSPE Pot life extender

For Health information refer to Material Safety Data Sheet

**FOR INDUSTRIAL USE ONLY
NOT FOR RESIDENTIAL USE**

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IMPORTANT: Warranty and Disclaimer — The performance characteristics of these products vary according to product application, operating conditions, materials applied to or with and use. Since these factors can affect results, we strongly recommend that you make your own test to determine to your satisfaction whether the product is of acceptable quality, has not been affected by storage or transport and is suitable for your particular purpose under your own operation conditions prior to using any product in full scale production. Seller warrants the products to be free from defects in materials and workmanship. SUCH WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE. No representative of ours has authority to waive or change this provision, which applies to all sales of these products.