



product  
information

**6H00-SERIES**  
**POLYURETHANE**

**Cardinal 6H00-Series** is a high-solids aliphatic two component polyurethane coating. This coating is well suited exterior applications on metal substrates. The 6H00-Series was formulated to meet strict air quality regulations, while maintaining the application and performance benefits of a conventional polyurethane coating

**TYPICAL USES:**

- Top coat for decorative and protective
- use on metal
- General metal finishing
- Trailer and vehicles
- Machinery

**BENEFITS:**

- Free of Hazardous Air Pollutants (HAPS)
- Low VOC content
- Excellent Durability
- RoHS / WEEE compliant

**CURED FILM PROPERTIES:**

Testing conducted on 6H08-5832 gloss white at 2.0 mils DFT (Dry Film Thickness) over 20 gauge Acrylic plastic test panels, force dried 30 minutes at 180°F, then air dried for 14 days.

TEST	METHOD	PARAMETERS	RESULT
Adhesion	ASTM D3359	Cross-hatch tape	0% failure
Impact:	ASTM D2794	Direct Reverse	130 in. lbs. 60 in. lbs
Flexibility:	ASTM D1737	1/4" mandrel	No cracking
Hardness	ASTM D3363	Pencil	H - 2H
Abrasion	ASTM D4060	CS-17 wheels, 1 kg, 1000 cycles	Less than 100 mg loss
Humidity	ASTM D2247	168 hrs	No effect
Salt Spray	ASTM B117	1000 hrs 95°, 5% salt solution	Less than 3/16" creep - along scribe, otherwise, no effect
UV Light	ASTM G53 QUV "A"	500 hrs	80% gloss retention
Solvent Resistance	ASTM D4752	MEK 100 rubs IPA 200 rubs	No effect No effect
Chemical & Stain Resistance	ASTM D1308 30 min. spot	A – 0.1N HCl, 30 wt. motor oil, ammonia, butyl carbitol, butyl cellosolve, Cascade®, Clorox®, Coca Cola®, coffee, diethyl ether, Drano®, Fantastic®, fiber pen ink, floor stripper, gasoline, IPA, Ivory® Liquid, lanolin lotion, lemon juice, Snap®, Spic & Span®, tap water, vegetable oil, water base ink, WD-40®. B – ball point pen ink, carbon disulfide, correction fluid, Freon TF®, MEK, nail polish. C – chloroform. D – solvent base ink.	A: No effect B: Slight dulling C: Moderate effect D: Discolored & softened

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

**TYPE:** Aliphatic polyester polyurethane.

**COMPONENTS:** Two.

**COLORS:** Full range including metallics.

**GLOSS:** High, Semi gloss and flat.

**COVERAGE:** At 1.0 mil DFT. 65% transfer efficiency (TE)

MIXED PAINT, 3.4LBS/GAL : 345 ft<sup>2</sup>/gal.

Calculation: 1604 ft<sup>2</sup>/gal x % volume solids x TE ÷ DFT

**VOC :** (as supplied)

374 grams/liter = 3.1 lbs/gal less water

196 grams/liter = 1.6 lbs/gal including water

**VOLUME SOLIDS:**

6H00 GLOSS BASE ..... 30%

6HHP ..... 50%

Mixed to 3.5 lbs/gal ..... 33%

**FLASH POINT:** 24°F TCC

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

**Mix Ratio:** Two components must be mixed properly to obtain coating performance. Thinning depends on applicator's regulatory VOC limits.

Parts are by volume	COLORS GLOSS
6H00-Base	4
6HHP	1

**APPLICATION:** Thoroughly stir or agitate paint before applying. This material is designed for spray application. Brushing, rolling and dipping are not recommended. See surface preparation and priming section for further instructions.

**Thinning:** After mixing material is ready to spray. Avoid over thinning.

**VISCOSITY:** 20" – 30" seconds, #3 Zahn cup at 78°F. Will vary depending on color.

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

**Cure:** Air Dry

Tack free 2 hrs.

Dry to handle 24 hrs.

Dry hard 72 hours

Force Dry

Dry hard 1 hour at 140° F

30 min. at 180° F

(At 1.5 mils dry film thickness, 78° F, 50% RH)

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**REPAIR OR REFINISHING:** Clean surface to be repainted, remove dirt, grease, oil, and all other contaminants. Abrade surface if necessary. Tack surface clean.

**SURFACE PREPARATION AND PRIMING:** The most important steps in a successful coating process are cleaning, pretreatment and priming. The following is a brief outline of some basics for unpainted substrates. It is not intended to be all-inclusive. For more information on your particular application contact Cardinal.

**Cleaning the substrate:** All surfaces to be coated, must be free of dirt, grease, oil, oxidation, mill scale, and all other contaminants. The surface must be thoroughly dry before painting. Air quality regulations have limited the allowable emissions from cleaning operations.

Steel — A phosphate chemical conversion coating is highly recommended. When this is not possible, apply directly to a clean surface a uniform coat of 4W02-E04626.

Aluminum — A chemical conversion coating is highly recommended. When this is not possible, a vinyl acid wash pretreatment primer is recommended such as Cardinal's 4860 series primers.

**PRIMER SELECTION:**

PRODUCT NO.	DESCRIPTION	FUNCTION
6460-4702	Polyurethane Gray	Corrosion resistance
7760-4702	Epoxy Gray	Corrosion resistance
7260-4702	Ketamine Gray	Corrosion resistance

**Related Products:**

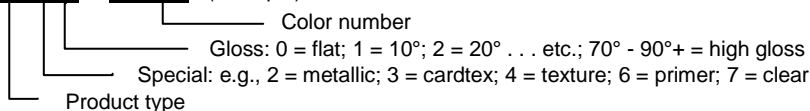
PRODUCT NO.	DESCRIPTION
SB-03	Slow Reducer
SB-17	Exempt Slow Reducer
SB-26	Slow Reducer
6SLA-100	Surface Additive

**Trouble Shooting:**

PROBLEM	CAUSE	REMEDY
Too thin / low viscosity	Over reduced.	Remix at correct ratio
Dry spray	High atmospheric temperature. Over atomization Gun to part distance	Increase fluid pressure & decrease atomizing pressure. Reduce with SB-17: 1% - 2%. Add SB-17 at rate of 1 oz./gal.
Craters	Contamination of substrate, application equipment or environment.	Find and eliminate source of contamination. When craters persist, add ½ oz./gal of 6SLA-100 additive.
Poor adhesion	Improper surface preparation.	See surface preparation section.

**PRODUCT IDENTIFICATION**

**6 H 0 0 - Series** (example)



**EQUIPMENT CLEAN-UP:** 1000-13 should always be used for primary cleaning. If something different is needed exempt solvents can be used for secondary cleaning, air quality regulations, in your area may have limited the allowable emissions from cleaning operations.

**Product Limitations:**

- Storage stability is limited to 6 months.

**SAFETY:** Refer to the product's Material Safety Data Sheet (MSDS) for complete safety information.

Contains organic solvents. Use with adequate ventilation. Do not breathe vapors or spray mists. If component TLVs are exceeded, a NIOSH approved air supplied respirator is advised. See MSDS for TLV information.

Contents are FLAMMABLE. Keep from heat, sparks or open flame.

Allergic reactions are possible. Avoid use by persons with respiratory problems.

Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

**FIRST AID:**

*Eye contact:* flush immediately with plenty of water for at least 15 min. and get medical attention.

*Skin contact:* wash thoroughly with soap and water for 5 minutes.

*If swallowed,* do not induce vomiting, get medical attention immediately.