



product
information

4400-SERIES

GLOSS ALKYD AIR DRY ENAMEL

Cardinal's 4400-Series is a quality; quick dry, single component solvent-borne alkyd enamel formulated in high gloss and conforms to VOC requirements. This product is designed for a variety of metallic substrates including: cold and hot rolled steel, galvanized steel, aluminum and can be used direct to metal for interior surfaces.

TYPICAL USES:

- Heavy equipment
- Utility trailers
- Farm Equipment
- Waste management equipment
- Ornamental iron work

BENEFITS:

- Fast dry
- Good gloss retention
- Good color retention
- Single component
- RoHS / WEEE compliant

CURED FILM PROPERTIES:

Unless otherwise indicated, testing conducted on 4409-08 gloss black at 2.0 mils DFT (Dry Film Thickness) over 20 gauge Bonderite 1000 test panel, cured 7 days air dried in ambient room temperature (78°F).

TEST	METHOD	PARAMETERS	RESULT
Adhesion	ASTM D3359	Cross-hatch tape	No loss
Impact:	ASTM D2794	Direct Reverse	60 in. lbs. 30 in. lbs
Flexibility:	ASTM D1737	1/4" mandrel	Pass
Hardness	ASTM D3363	Pencil	HB – F
Salt Spray	ASTM B117	250 hrs 95°, 5% salt solution	Less than 1/8" creepage
Solvent Resistance	ASTM D4752	MEK 100 rubs IPA 200 rubs	Softens but recovers No effect
Chemical & Stain Resistance	ASTM D1308 30 min. spot	A –Anti-freeze, motor oil, diesel, hydraulic fluid, gasoline, automatic transmission fluid. B – none. C – none. D – Brake fluid.	

A: No effect B: Slight dulling C: Moderate effect D: Discolored & softened

TYPE: Alkyd polymer.

COMPONENTS: One.

COLORS: Full range including metallics..

GLOSS: High, semi gloss and flat.

COVERAGE: At 1.0 mil DFT.

585 ft²/gal. at 100% transfer efficiency (TE)

380 ft²/gal. at 65% TE

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

VOC MIXED: (as supplied)

340 grams/liter = 2.75 lbs/gal excluding exempt solvents

207 grams/liter = 1.68 lbs/gal including exempt solvents

VOLUME SOLIDS: 38%

FLASH POINT: 40°F TCC

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

APPLICATION: Thoroughly stir or agitate paint before applying. Brushing, rolling and dipping are not recommended. See Surface Preparation And Priming section for further instructions.

VISCOSITY: 15 – 25" seconds, #2 Zahn cup at 78°F.
Will vary depending on color.

RECOAT: After 4 hours.

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

CURE: Air Dry

Tack free 20 min.

Dry to handle 60 min.

Full cure 7 days

EQUIPMENT: Most air quality regulations require the paint application transfer efficiency to be 65% or better. This generally means using electrostatic or high volume low pressure (HVLP) spray guns. Otherwise, conventional pressure feed, airless or air assisted airless spray equipment can be used. Air supply lines need water and oil traps.

CLEAN-UP: Clean up should be done as soon as possible. The drier the paint, the more resistant it is to clean up. Air quality regulations may limit allowable emissions from cleaning operations

FOR INDUSTRIAL USE ONLY
NOT FOR RESIDENTIAL USE

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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

Steel — A phosphate 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.

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.

Galvanized — Remove all white rust, Cardinal's W-303-A surface preparation solution improves adhesion.

PRIMER SELECTION:

PRODUCT NO.	DESCRIPTION	FUNCTION
4360-73687	2.3# VOC Gray Primer	Improve corrosion resistance

RELATED PRODUCTS:

PRODUCT NO.	DESCRIPTION
SB-05	Fast exempt reducer and gun cleaner
HP-439	Medium exempt reducer

TROUBLE SHOOTING:

PROBLEM	CAUSE	REMEDY
Not drying	Too heavy – film thickness	Lower fluid pressure Spray multiple coats
Craters Fish-eyes	Surface tension	Add 1/2 oz./gal. of J-3081
Wrinkling	Recoat too soon	Lengthen recoat window

PRODUCT LIMITATIONS:

- Do not recoat prior to four hours. Temperature, humidity or film thickness may change recoat times.
- Do not apply below 50°F.

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.

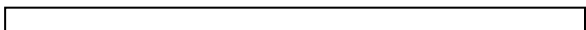
Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

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.



PRODUCT IDENTIFICATION

4409 - E03389 (example)

