



642 Series

Fast Drying High Gloss Alkyd Enamel

Technical Data Sheet

Revised 5/21/2026

642 Series Alkyd Enamel is recommended for industrial use on primed or un-primed metal surfaces that require cost-effective, one coat industrial alkyd applications.

With its quick dry time, fast turnaround in a shop setting may be achieved. Suitable applications include metal fabrication, heavy duty equipment, agricultural equipment and industrial equipment.

This product contains HAPs and has less than 4.8 lbs/gal VOCs per EPA Method 24. It has excellent substrate wetting properties. Engineered to provide application flexibility and can be used as a single component or can be catalyzed with ACT913 to increase long term properties.

Product Advantages

- <3.0 lbs/gal HAPS
- <4.8 lbs/gal VOC
- Fast drying
- Direct to metal capable
- Good outdoor durability and gloss retention
- Available in a wide range of colors and gloss

Product Uses

- Agriculture Equipment
- Structural Steel
- Dumpsters and Storage Containers
- Industrial Machinery and Equipment
- General OEM Finish

Physical Properties	642 Series	642 Series with Activator 913 (optional)
Solids % by weight	45 – 50 %	47 – 51 %
Solids % by volume	37 – 39 %	38 – 40 %
HAPs	3.0 lbs/gal (<360 g/L)	3.0 lbs/gal (<360 g/L)
Photo-chemically reactive	Yes	Yes
Weight/Gallon	8.5 – 9.5 lbs/gal (1018 – 1138 g/L)	8.5 – 9.5 lbs/gal (1018 – 1138 g/L)
VOC (EPA Method 24)	<4.8 lbs/gal (575 g/L)	<4.8 lbs/gal (575 g/L)

*All material property values are theoretical. Actual values will slightly vary depending on manufacturing variables.

Application

Surface Preparation

The surface to be coated must be sanded and free of all contamination (including dust, dirt, oil, grease, and oxidation). Chemical treatment and the use of a conversion coating will improve the performance properties of the coating system. We recommend that adhesion and system compatibility be checked prior to full application.

642 Series

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Substrate	Application Recommendations: Direct to Properly Prepared Substrate
Cold Rolled Steel	Very good
Hot Rolled Steel	Very good
Galvaneal	Not recommended over zinc substrates
Galvanized	Not recommended over zinc substrates
Aluminum	Fair – Good (chrome treated aluminum only)
Plastic/Fiberglass	Not Recommended over plastic substrates

Mixing Directions	642 Series	642 Series with Activator 913
Mix Ratio	N/A	10:1
Pot Life	N/A	2 hours
Mix Directions	Stir thoroughly before and occasionally during use	
Thinning	SOL670, SOL680, SOL690 as needed	
Line Flush Clean Up	MEK(Methyl Ethyl Ketone)	

Application Equipment	Application	Application Viscosity
Conventional Cup Gun	1.4 – 1.8 mm needle/nozzle w/40–50 psi at the gun	15 – 30" #3 EZ Zahn
Conventional with Pressure Pot	1.4 – 1.8 mm needle/nozzle w/40–50 psi at the gun 20 – 25 fluid pressure	15 – 30" #3 EZ Zahn
HVLP (with or without pressure pot)	1.4 – 1.8 mm needle/nozzle w/10 psi at the cap	15 – 30" #3 EZ Zahn
Airless	0.011" – 0.014" tip at 1500 – 2200 psi fluid pressure	15 – 30" #3 EZ Zahn
Air-Assisted Airless	0.011" – 0.014" tip at 900 – 1300 psi fluid pressure	15 – 30" #3 EZ Zahn
Brush or Roll	Not recommended	
Electrostatic	Contact Baril Representative for definitive answer.	

Application	642 Series
Apply	1-2 Coats with 10-minute flash
Recommended Wet Film Build	2.8 – 3.5 mils (70 – 88 microns)
Recommended Dry Film Build	1.2 – 1.5 mils (30 – 51 microns)
Coverage (at 1 mil no loss)	593 – 625 sq.ft./gal
Compatible Primers	Bariline 750

642 Series

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Dry Times		642 Series	642 Series with Activator 913
Air Dry @ 77°F (25°C) 50% RH			
To Touch		25 – 30 minutes	
To Handle		60 – 90 minutes	
To Recoat		Before 4 hours or after 3 days	
Force Dry		10 minutes air dry, bake 20 minutes @ 160°F (71°C)	

*Paint film is not fully cured for 7 days. Drying time may vary, depending on film build, color selection, temperature, humidity, and degree of air movement

Technical Data

Performance Properties	ASTM Method	642 Series	642 series with Activator 913
Pencil Hardness	D3363	2B – 3B	HB – F
Gravelometer	D3170	5	8
Gloss @ 60°	D523	80+	80+
Adhesion	D3359	5B	5B
In Service Temperature Limit – Intermittent		180°F (82°C)	180°F (82°C)
In Service Temperature Limit – Continuous		Not recommended	Not recommended

* Properties listed are after allowing paint to cure for 14 days at ambient temperatures

Chemical Resistance	ASTM Method	642 Series	642 series with Activator 913
MEK (25 double rubs)	D1308	Severe wrinkle	Slight stain
10% NaOH (Sodium Hydroxide) – 24 hours	D1308	Severe wrinkle	Slight stain
10% HCl (Hydrochloric acid) – 24 hours	D1308	Slight wrinkle	Pass
10% H2SO4 – Soak 24 hours	D1308	Severe wrinkle	Pass
Gasoline – Soak 24 hours	D1308	Slight wrinkle	Slight stain
Water – Soak 24 hours	D1308	Pass (discoloration)	Pass (no discoloration)

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Weather Resistance	ASTM Method	642 Series	642 series with Activator 913
Salt Spray 150 hours	B117		
Corrosion Creep	D1654	6A	5A
Scribe Blisters	D714	8D, 6D	8F
Face Blisters	D714	6F	8M
Humidity 100 hours	D2247		
5 Minute Adhesion Recovery	D3359	4B	5B
1 Hour Adhesion Recovery	D3359	4B	5B
24 Hour Adhesion Recovery	D3359	4B	5B
QUV-B: 60° angle	D4587		
100-hour gloss retention	D523	42.00%	53.00%

* Properties listed are after allowing paint to cure for 14 days at ambient temperatures

Safety / Warranty

Precautionary Information

Before using the products listed herein, carefully read each product label and follow directions for use. Please read and observe all warnings and precautionary information on all product labels. Prevent all contact with skin and eyes and breathing of vapors and spray mist. Repeated inhalation of high vapor concentrations may cause a series of progressive effects including irritation of the respiratory system, permanent brain and nervous system damage and possible unconsciousness and death in poorly ventilated areas. Eye watering, headaches, nausea, dizziness, and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Emergency medical or spill information 8am – 5pm: 260.665.8431. After hours: Chemtrec 800.424.9300

KEEP OUT OF THE REACH OF CHILDREN.

Safety

These materials are designed for application only by professional, trained personnel, using proper equipment under controlled conditions and are not intended for sale to the general public.

Safe application of paints and coatings requires knowledge of equipment, materials, and individual training. Directions and precautionary information on both equipment and products should be carefully read and strictly observed for personal safety and property protection. Consideration must be given to eliminate conditions, which may generate hazardous atmospheres during spray application or subject operations or bystanders to injury or illness.

Special precautions must be taken when utilizing spray equipment, particularly airless equipment. High-pressure injection of coatings into the skin by airless equipment may cause serious injury requiring immediate medical attention at a hospital. Treatment advice may also be obtained from Poison Centers.

Warranty / Disclaimer

The technical data and other printed information furnished are true and accurate to the best of our knowledge. The products are warranted pursuant to acceptance of limited warranty. A copy of which can be obtained from Baril Coatings, which is the exclusive warranty with respect to the sale of this product. The modification of any component or uses not outlined in this bulletin nullifies the warranty unless advance written confirmation is obtained from Baril Coatings. No other warranties expressed or implied shall apply. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, shall be to supply replacement materials as set forth in the limited warranty.