

TriGuard™ Aluminum

Silicone Alkyd Aluminum Enamel

SELECTION DATA

DESCRIPTION:

TriGuard Aluminum 33 series is a premium, silicone alkyd enamel with aluminum pigmentation, a color variant of **33** series **TriGuard** products. The aluminum pigmentation will accept higher temperatures without discoloring and produces a significantly different weight, gloss and flash point. Therefore, a separate data brochure is provided. Silicone alkyds provide the best gloss retention and durability possible in single component material, rivaling automotive acrylics with a urethane hardener. They give iron and steel the best protection against moisture (corrosion) in a single component product. **33 series** features excellent resistance to elevated temperatures up to 450° F. **TriGuard Aluminum** combines these features with fast dry and an exceptionally hard, uniform finish that rivals factory baked systems for appearance and serviceability. **33 series** is recommended whenever exterior iron or steel requires protection against corrosion, heavy handling, dirt, oils, etc. and excellent long term gloss retention, serviceability and appearance.

USE:

TriGuard Aluminum is recommended equally for primed metal or wood and can be applied directly to clean (min. SSPC-SP2 or SP3) iron or steel. Typical uses include storage tanks, transmission pipes, light towers, bridges, hand railings, smoke stacks, boiler fronts and metal structures in severe climates such as weather stations.

ADVANTAGES:

- Outlasts conventional alkyds by 3:1 and more.
- Excellent resistance to weather
- Excellent corrosion protection.
- Withstands temperatures to 450° F.

LIMITATIONS:

- Limited chemical resistance. Not recommended for direct contact with gasoline, diesel, hydraulic fluids and solvents.
- Too fast dry to recommend brushing large surfaces.
- Galvanized metal and wood must be primed.

PHYSICAL PROPERTIES

VOC: [as packaged] 420 g/l - (3.5 lbs./gal.)

APPEARANCE:

Gloss (G) @ 60° 75 – 85

WEIGHT PER GALLON: 8.7 lbs.

FLASH POINT: [setaflash] 68° F. (20° C.)

PACKAGE VISCOSITY: 77 – 82 KU.

SOLIDS:

By Weight 60 ± 1%

By Volume 47 ± 1%

COVERAGE:

 [average]

Theoretical at 1 mil DFT 740 sq.ft./gal.

Theoretical at 2 mils DFT 370 sq.ft./gal.

Required Minimum DFT per coat 2 – 3 mils

DRY SCHEDULE:

 [at 50% RH and 2 mils DFT]

	45° F.	60° F.	75° F.	90° F.
Tack Dry	1 hrs.	45 mins.	30 mins.	15 mins.
To Handle	18 hrs.	10 hrs.	5 hrs.	4 hrs.
Recoat	36 hrs.	18 hrs.	12 hrs.	8 hrs.
Hard Cure	96 hrs.	48 hrs.	24 hrs.	24 hrs.

ORDER CODE:

 33G798

Individual products are identified by the product series number, followed by a gloss identifier (G=gloss, S=semigloss) and ending in the color number. For example, 33G798 is **TriGuard (33)** gloss (G) Silver (798).

PACKAGING:

 [average]

Four ea. 1 gallon cans per case 48 lbs.

One ea. 5 gallon metal pail 60 lbs.

Continued 

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TRIANGLE™



TriGuard™ Aluminum

Silicone Alkyd Aluminum Enamel

APPLICATION DATA

REQUIREMENTS FOR APPLICATION:

- Surfaces and ambient temperatures must be between 42° and 95° F. and minimum 5° F. above dewpoint for normal application. Special procedures required from 28° F. to 42° F. and 95° – 115° F. Secure procedures/approval from Triangle representative.
- Surfaces must be free of moisture, corrosion (flash rust OK), oils, loose paint, dirt, all forms of silicone, waxes, etc. SSPC-SP1, SP2 or SP3 as minimum.
- Performance over mill scale cannot be predicted. All scale should be removed.
- Provide adequate ventilation, eliminate open flame and any potential sources of sparking.
- Enameled surfaces must be abraded to dull.

PRIMING:

Reference Tech Advisory 1 & 3 for a complete review of recommended primers and options.

Iron & Steel 903 Bakote Primer
Galvanized 938 AquaMAX Primer
Wood 292 Apex Primer

FILM DEVELOPMENT:

Optimum dry film thickness is 1.5 mils per coat. Use one coat over primed or previously painted surfaces, two or more coats over bare metal. However, without reduction it is difficult to apply VOC compliant alkyds that thin. Typical, acceptable DFTs range between 1.75 and 2.0 mils. Maximum recommended wet film thickness is 4 wet mils unreduced or 2 mil DFT. Thicker films surface dry and are less durable. Unreduced, **TriGuard Aluminum** applied at 525 sq.ft./gal. over smooth, sealed surfaces will produce a 1.50 mil DFT and allow for 3% waste (1.75 mil DFT's = 450 sq.ft./gal. unreduced).

THINNING:

Thinning with most solvents is not legal in areas that have a VOC regulation of 420 g/l (3.5 lbs./gal.). Maximum reduction to meet 420 is "0" ounces of solvent. However, exempt solvents are available in most areas and performance may be enhanced by thinning where/when legally permissible. In unregulated areas a 0 – 15% reduction with mineral spirits is recommended for brushing. 15 – 25% reduction with xylene for spray. Exempt solvents

vary in solvency and speed of evaporation. VOC regulations vary by state and county. Contact Triangle and the appropriate AQMD for guidelines and recommendations.

APPLICATION:

TriGuard Aluminum is designed for spray application. Use an airless on large structural surfaces - tanks, transmission pipes, etc. Use conventional when finishing doors, trailers, metal fabrications, etc. Use HVLP where legally required for shop finishing. Product design allows limited areas to be brushed effectively, window trim for example.

Airless: Any 1/3 gpm or larger pump with a .013 – .015 tip. On large jobs and when pumping vertically, larger pumps will be required. For fine finishing use a .011 – .013 tip with a Binks preorifice tip or a .012 – .014 Graco Fine Finish Tip.

HVLP: .040" fluid nozzle with a pressure feed. Fluid pressure to produce a 6" stream without air cap, 65 – 80 psi and 18 CFM air.

Conventional: .040 – .055 fluid nozzle; air cap sized to air supply feed and ability to thin.

Air Assist Airless: .011 tip and maximum possible fluid pressure.

CLEANUP: AT17 Wash Thinner or xylene. Rinse equipment with clear mineral spirits.

SAFETY AND HANDLING

FLASH POINT: [setaflash] 68° F. (20° C.)

SHIPPING DESCRIPTION: [CFR 49]

Ground/Air/Vessel: Paint, 3, UN1263, PG II

Required Label: FLAMMABLE LIQUID

Required Marking: PAINT UN1263

IMDG PACKAGING:

FLAMMABLE LIQUID, class 3.3, UN1263, III

IMDG STOWAGE: Category A

UNIFORM FIRE CODE: [CFR 29] CLASS I-C

STORAGE TEMPERATURE: 120° F. max.

SHELF LIFE: [warranted] 1 Year

"HMIS" RATINGS: H - 2; F - 3; R - 0; PP - H

(12/04/02)

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