

TriAqua Aluminum™

VOC Compliant, Water Reducible Aluminum Alkyd Enamel

SELECTION DATA

DESCRIPTION:

TriAqua 16G798 is a VOC complaint, single component, water reducible, air dry aluminum alkyd finishing enamel. It is designed for direct two coat application to hand cleaned iron and steel, SSPC-SP1. *It is recommended for spray application only.* Full gloss retention is for two years. Metal is well protected for up to seven years. **16G798** is in our honest estimation, the best water reducible finishing enamel made. It has the fastest hard dry of any water reducible enamel and the best early water resistance of any latex or alkyd known to Triangle. Adhesion and general durability are also better than any non-catalyzed alkyd. It is VOC compliant, has nearly no environmental hazards and negligible health hazards.

USE:

In VOC regulated areas, water reducible alkyds are the only type of single component finishing enamel that can produce a traditional quality finish: very high gloss, excellent DOI and no orange peel. In non regulated areas, water reducible products provide levels of worker safety, fire and chemical, unobtainable with solvent borne products and, with proper use, can eliminate solvent disposal and reduce overall cost. **16G798** is recommended for any iron or steel fabrication not requiring special chemical or extreme abrasion resistance. It is specifically designed for larger air dry fabrications going into exterior service: farm and construction equipment, tools, trailer, light poles and exposed shop finished architectural components such as trusses.

ADVANTAGES:

- Excellent finish and very high gloss.
- Direct to metal.
- Fast dry; fastest of any like product.
- Single component: guns and lines do not require cleaning after use.
- Superior adhesion and durability.

LIMITATIONS:

- Very temperature sensitive drying; do not use under 50° F. Above 85° F. a retarder is necessary.
- Not recommended for submersion or below grade service; not recommended for chemical contact.
- May exhibit lower gloss when applied over other paints.
- Six month shelf life.

PHYSICAL PROPERTIES

VOC: [as packaged] 364 g/l – (3.04 lbs./gal.)

APPEARANCE:

Gloss (G) 70 – 80

WEIGHT PER GALLON: 8.6 lbs.

FLASH POINT: [setaflash] 143° F.

PACKAGE VISCOSITY: 75 – 80 KU

SOLIDS:

By Weight 31 ± 1%

By Volume 28 ± 1%

COVERAGE:

 [average]

Theoretical at 1 mil DFT 440 sq.ft./gal.

Theoretical at 1.5 mils DFT 293 sq.ft./gal.

Recommended DFT 1.5 mils

DRY SCHEDULE:

 [at 50% RH and 1.5 mils DFT]

	45° F.	60° F.	75° F.	90° F.
<i>Dry to Touch</i>	2 hrs.	1 hrs.	30 mins.	15 mins.
<i>Handle/Recoat*</i>	16 hrs.	8 hrs.	4 hrs.	2 hrs.
<i>Hard Cure</i>	7 days	4 days	3 days	2 days.

16 series may be force cure at 194° F for 15 mins.

*No maximum recoat time and no water spotting after "Hard Cure" time. After 1 week wash clean of all foreign matter. Light sanding may be necessary if cured coating is subject to exterior exposure for extended periods.

COLOR AVAILABILITY:

16G798 Metallic silver

ORDER CODE:

 16G798

Individual products are identified by the product series number, followed by a gloss identifier (G=gloss, S=semigloss, M=matte and F=flat) and ending in the color number For example, 16G798 is **TriAqua** (16) gloss (G) metallic silver (789).

PACKAGING:

 [average]

Four ea. 1 gallon cans per case 40 lbs.

One ea. 5 gallon metal pail 48 lbs.

Continued 

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TRIANGLE™



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APPLICATION DATA

REQUIREMENTS FOR APPLICATION:

- Both surface and ambient temperatures must be above 50° F. and remain above 50° F. for four hours after application.
- Applied material must be protected from all forms of moisture until rainproof as per chart above.
- Bare metal must be cleaned to min. SSPC-SP1.
- Existing paint must be fully adherent and free of all contaminants.
- Urethane and epoxies must be abraded to dull.
- Wood and galvanized metal must be primed.

PRIMING:

Consult Tech Advisory 3 for a complete review of recommendations and options.

New Iron & Steel..... None
 New Galvanized..... PreEtch 994P
 Wood Apex 292

FILM DEVELOPMENT & THICKNESS:

TriAqua is designed for application in two or more coats to produce a combined DFT of 2.5 – 3.0 mils. The first coat should be thinner than the second, but a full coat not a “tack coat.” Normal DFTs are 1.0 – 1.25 first and 1.75 – 2.0 for the second. On smooth surfaces the rates below will produce the DFTs shown and allow for 5% waste.

1.25 mils DFT 345 sq.ft./gal.
 1.5 mils DFT 285 sq.ft./gal.
 1.75 mils DFT 245 sq.ft./gal.
 2.0 mils DFT 215 sq.ft./gal.

THINNING:

For spray application with a conventional or HVLP gun, reduce with 1 – 3 fl.oz. of water to 18 – 23 seconds with a #2 Zahn Cup. In temperatures above 80° F. an additional 1 – 2 fl.oz. of AT70 Retarder will help film uniformity and gloss.

APPLICATION:

TriAqua is best applied with conventional or airless spray. HVLP is satisfactory where required but will impart some orange peel and require more retarder to control dry spray. Air assist airless with fluid pressure above 1800 psi produce a good finish; older units with maximum fluid pressure of less than 1000 psi do not. Spray is the only recommended method of application, including touch up.

Conventional Spray: Pressure feed is recommended but only for convenience. Binks 2001

Gun or equivalent, .030" – .040" fluid nozzle; air cap sized for available air. Use 25 – 30 psi material pressure; 60 – 65 psi air pressure.

Airless: Any +1/3 gpm pump with an .011 – .013 tip. Use either a Binks Pre Orifice tip and 120 mesh tip filter in conjunction with a flat tip or a .012 Graco Fine Finish Tip. The Pre Orifice tip + flat tip is recommended for ease of maintenance. Tips larger than .013 do not work.

Air Assist Airless: 1500 – 1800 psi fluid pressure; .011 fluid tip, air pressure as necessary for fan desired. Use smallest amount of air possible.

HVLP: Use Binks 89 – 90 fluid nozzle, .020" – .030", fluid pressure as needed to produce a 6" fluid stream without any air.

Apply in two wet coats. The smoothness of the wet film is the same as the dry. Orange peel and dry spray will not “wet in” or flow out. Typically the gun must be closer to the part and a significantly wetter film applied. For optimum gloss the finish coat must be applied until the paint “puddles.” Reduced as recommended above, the sag point is 4.0 – 4.5 wet mils over bare steel and well above 6 over itself as a second coat. An ideal film is one coat at 2 – 3 wet mils and a finish at 5 – 6. Below 4.0 mils wet gloss will be compromised.

CLEANUP: Water
 Clean wet tools with water. Dried **TriAqua** can be cut with AT17 Wash Thinner.

SAFETY AND HANDLING

FLASH POINT: [setaflash]..... 143° F. (61° C.)

SHIPPING DESCRIPTION: [CFR 49]

Ground/Air/Vessel: Non Regulated Material
 Required Label & Marking: Not Required

IMDG PACKAGING: Not Required

IMDG STOWAGE: Not Regulated

UNIFORM FIRE CODE: [CFR 29] CLASS III-A

STORAGE TEMPERATURE: 120° F. max.

SHELF LIFE: [warranted] 1 Year

“HMIS” RATINGS: H - 2; F - 2; R - 0; PP - H

(01/15/09)

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