



Goldstone™ TriThane Formula

Urethane Enamel, High Reflectance, Microwave Antenna Coating

SELECTION DATA

DESCRIPTION:

Goldstone 500HR6 is a specially formulated coating designed to have high infrared radiation reflectance. It is formulated for the NASA Deep Space Instrumentation Facilities (DSIF) to protect microwave antennas from heat accumulation. This coating is also used to protect large dish telescopes and radio receivers. **Goldstone** is intended for spray application. It is designed for HVLP air spray and HVLP air assisted airless systems but, where legal, it can be applied with conventional or airless systems. **Goldstone 500HR6** is a 500 g/l VOC compliant, high performance, two component, air or forced dry, acrylic aliphatic urethane enamel. **Goldstone 500HR6** is hard drying but with a resilient, leather like toughness that gives it unsurpassed impact and abrasion resistance. In addition, it is water impermeable, fully resistant to atmospheric exposure to chemicals and resistant to splash and spill type contact with most chemicals. This is a 7 to 1 mix.

USE:

Goldstone typical applications include; microwave antenna dishes, radio receivers, large dish telescopes or where a high infrared diffused reflection is needed.

ADVANTAGES:

- Meets 500 g/l VOC as applied.
- State of the art color retention, abrasion and chemical resistance.
- High infrared diffusion properties reduced surface temperature.
- When used as a complete Triangle system, it does not distort or obstruct transmission and receiving signals.

LIMITATIONS:

- When applied, may not meet local air quality regulations.
- Not recommended for sustained direct chemical contact, permanent submersion in water or below grade use.

PHYSICAL PROPERTIES

VOC: [catalyzed]422 g/l – (3.53 lbs/gal)

APPEARANCE: [Gloss at 60°]

Flat (F)..... 5 – 10

WEIGHT PER GALLON: [catalyzed]10.4 lbs

FLASH POINT: [catalyzed] [setaflash]68° F

PACKAGE VISCOSITY: [catalyzed] 65 – 75 KU

SOLIDS: [catalyzed]

By Weight 69 ± 1%

By Volume 52 ± 1%

COVERAGE: [catalyzed]

Theoretical at 1 mil DFT834 sq ft/gal

Theoretical at 1.5 mils DFT556 sq ft/gal

[Recommended DFT per coat (1 or 2 coats) 2.0–2.5 mils.]

DRY SCHEDULE: [at 50% RH and 2 mils DFT]

| | 45° F | 60° F | 75° F | 90° F |
|------------------|--------|---------|---------|---------|
| Tack free | 3 hrs | 90 mins | 45 mins | 30 mins |
| Handle | 10 hrs | 4 hrs | 2 hrs | 1½ hrs |
| Rainproof | 28 hrs | 12 hrs | 6 hrs | 4 hrs |
| Recoat | 24 hrs | 12 hrs | 10 hrs | 8 hrs |
| Full cure | 7 days | 4 days | 10 hrs | 8 hrs |

ORDER NUMBER AND COLOR:

500HR6 TriThane Flat White

TriThane Hardener 500B

COLOR AVAILABILITY:

The **Goldstone 500HR6** is packed as White only.

Any color can be made with 25 gallon minimum order.

PACKAGING:

One gallon kit12 lbs

One gallon 7/8 full (112 fl oz) fill of Part A & one pint (8 fl oz) fill pint can of Part B.

Five gallon kit60 lbs

One each 4 3/8 gallon fill in a 5 gallon can of Part A & a 5/8 fill 1 gallon can of Part B

TRIANGLE COATINGS, INC.

Tel: 510-895-8000

800-895-8000

Fax: 510-895-8800

TRIANGLE™



Goldstone™ TriThane Formula

Acrylic Urethane, High Reflectance, Microwave Antenna Coating

APPLICATION DATA**REQUIREMENTS FOR APPLICATION:**

All substrates must be dry and in sound condition. Remove oil, dust, loose rust, peeling paint or other contamination to ensure good adhesion. For maximum durability of paint system, prepare the steel for painting in accordance with SSPC-SP6, Commercial Blast Cleaning. Minimum surface preparation should be no less than SSPC-SP2, Hand Tool Cleaning or SSPC-SP3, Power Tool Cleaning. On smooth metal, etching the surface is necessary. The use of iron phosphate preparation will enhance the adhesion of topcoat or primer to most metal surfaces. **500HR6** is recommended for direct application to properly prepared fiberglass but all other substrates should be primed.

- Surfaces must be dry and protected from all moisture until rainproof as per chart above.
- Both surface and ambient temperature must be above 45° F and 5° F above the dewpoint. Maximum recommended temperature is 110° F surface and 95° F ambient.
- Fiberglass and surfaces previously painted with **500HR6** or equivalent must be sanded to dull. For a fine finish on any sanded surfaces, finish sanding with very fine 400 – 600 grit sandpaper and dry brushed or vacuumed to remove all dust.

PRIMING:

Sheet metal.....941P Tripoxy Primer
 Aluminum...994P PreEtch+900P Envirotech Primer
 Galvanized Steel.....945P AquaPrime
 Iron/Steel.....941P Tripoxy Primer

FILM DEVELOPMENT & THICKNESS:

Recommended film thickness varies with use. In non corrosive atmospheric service, a two mil DFT is recommended. The use of two distinct coats is highly recommended as insurance against pinhole voids. Two coats each with a 2 mil DFT are also recommended on surfaces subject to intermittent submersion. **Goldstone TriThane** can be recoated during the tack stage of drying. **500HR6** series dries very quickly which allows multiple coats to be applied at one time. However, if **500HR6** dries for 90 – 120 min. it must be allowed to dry completely for 8 hours before it is recoated.

MIXING:

Catalyzing: Mix ratio is 7:1. Pour Part B in to Part A while stirring, *then reduce*. When preparing smaller quantities, recommend staying in quart increments (28 fl oz of 500 to 4 fl oz of hardener).

Pot Life: Pot Life will vary slightly with temperature and humidity but when reduced to spray viscosity, pot life will be at least 6 hours in all conditions.

THINNING:

Add Hardener before reducing. Designed for a 25 – 50% reduction when applied by conventional spray and 5 – 15% when applied by airless. Two reducers are used:

- AT61 Standard, 65° – 90° F
- AT70 Slow, above 95° F

APPLICATION:

500HR6 is specifically designed for conventional spray but is amenable to HVLP and air assist airless but these two methods require the use of slower solvents. Airless spray is recommended for large surface maintenance painting such as tanks, large beams, etc. High ratio pumps are required. Typical 1/3 – 1 gpm house pumps do not develop enough pressure for proper atomization.

CLEANUP: AT17 Wash Thinner or lacquer thinner. Rinse tools with clean AT61.

SAFETY AND HANDLING

FLASH POINT: [Part A] 68° F (16° C)

FLASH POINT: [Part B] 81° F (16° 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 3.2, UN1263, II

IMDG STOWAGE: Category B

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

STORAGE TEMPERATURE: 120° F max

SHELF LIFE: [warranted] 1 Year

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

WARRANTY: The statements made herein, on labels, product bulletins, or by any of Triangle Coatings', Inc. employees or agents concerning this product are given for general information only. Due to variables beyond Triangle's control in application, surface preparation, surface temperature, humidity and other variable factors Triangle assumes no liability for any claim that may arise out of the use of its products and disclaims any warranty expressed or implied relating to the storage, application, thinning, merchantability, Buyer's assumption of performance, and the fitness for a particular purpose. Receipt of products from Triangle or its agents constitutes acceptance of the terms of this warranty. In the event that Triangle finds that the product delivered is not of Triangle's standard quality, Triangle will at its sole discretion, either replace the product or refund the purchase price. Triangle's choice of one of these remedies shall be the Buyer's sole remedy. Triangle will under no circumstances be liable for consequential damages, except insofar as liability is mandated by law. Triangle will deliver products at agreed times insofar as it is reasonably able to do so, but it will not be liable for failure to deliver on time when the failure is beyond its reasonable control.

SPC500HR6-09/07-002