

TriThane™

High Performance, 2 Component, Spray Acrylic Urethane Enamel

SELECTION DATA

DESCRIPTION:

TriThane 500 series is a non VOC compliant, high performance, spray applied, two component, air or forced dry, acrylic aliphatic urethane enamel. Acrylic urethanes like **TriThane** have the best gloss, gloss retention, color retention and atmospheric durability today's paint technology can provide. They are hard drying but with a resilient, leather like toughness that gives them unsurpassed impact and abrasion resistance. In addition, they are water impermeable, fully resistant to atmospheric exposure to chemicals and resistant to splash and spill type contact with most chemicals. Formulated acrylic urethanes like **TriThane** have the best chemical and water resistance that the product type can offer. It is available in three gloss levels: high gloss, semigloss and matte.

USE:

TriThane is designed as a product finishing enamel. It is equally suitable for air dry and force curing. Typical uses include housings for computers, electronic and medical equipment, light fixtures, etc. **500** series meets the computer industry's chemical resistance tests and is available in a smooth and textured finish.

TriThane is also used as an industrial maintenance enamel and a refinishing product for industrial vehicles, especially off road vehicles subject to rough treatment and exterior steel structures. For these uses Triangle developed a very slow reducer, AT70, to provide the open time needed to finish large objects. Typical applications include; chemical storage tanks, farm equipment, industrial machinery, chemical processing equipment, oil field machinery, refineries, etc.

ADVANTAGES:

- State of the art gloss retention, color retention, abrasion and chemical resistance.
- Exceptional product versatility: air or force dry, three gloss levels, suited for OEM finishing and industrial maintenance, unlimited color range.

LIMITATIONS:

- Not compliant in any VOC regulated area.
- Urethanes contain isocyanates.
- Not recommended for sustained direct chemical contact, permanent submersion in water or below grade use.

PHYSICAL PROPERTIES

VOC: [catalyzed] 480 g/l – (4.01 lbs./gal.)

APPEARANCE: [Gloss at 60°]

High Gloss (G) 88 – 93

Semigloss (S) 60 – 70

Matte (M) 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 62 ± 1%

By Volume 46 ± 1%

COVERAGE: [catalyzed]

Theoretical at 1 mil DFT 735 sq.ft./gal.

Theoretical at 1.5 mils DFT 490 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 _j	90 mins _j	45 mins _j	30 mins _j
Handle	10 hrs _j	4 hrs _j	2 hrs _j	1½ hrs _j
Rainproof	28 hrs _j	12 hrs _j	6 hrs _j	4 hrs _j
Recoat	24 hrs _j	12 hrs _j	10 hrs _j	8 hrs _j
Full cure	7 days	4 days	10 hrs _j	8 hrs _j

COLOR AVAILABILITY:

TriThane is stocked in white and a full base system in all gloss levels. Any non metallic color can be tinted using Colortrend 844 Industrial Colorants. Any color can be milled from dry pigments with minimum 25 gallon order.

ORDER CODE: 500 + gloss + color #
Individual products are identified by the product series number, followed by a gloss identifier (G=gloss, S=semigloss, M=matte) and ending in the color number. For example, 500G633 is **TriThane** (500) gloss (G) Lt. Gray ANSI 70 (633).

TriThane Hardener 500B

PACKAGING:

One gallon kits [total wt. for 2 cases] 50 lbs.

Four each 112 fl.oz. fill in 1 gallon cans of Part A & four each full fill pint cans of Part B.

Five gallon kit 60 lbs.

One each 4½ gallon fill in a 5 gallon can of Part A & a ½ fill 1 gallon can of Part B

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TRIANGLE™



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APPLICATION DATA**REQUIREMENTS FOR APPLICATION:**

TriThane 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 +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 **TriThane** 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:

Reference Tech Advisory 3 for a complete review of recommended primers.

Sheet metal 941P Tripoxy Primer
Iron/Steel Non Chemical...941P Tripoxy Primer
Iron/Steel Chemical 7476 TCP

FILM DEVELOPMENT & THICKNESS:

Recommended film thickness varies with use. In non corrosive atmospheric service, a two mil DFT is recommended. Textured finishes are applied over a 1.5 mil base and add the equivalent of another 1.0 – 1.5 mils. In severe atmospheric service and in chemical environments a 4 mil finish applied in two coats 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. **TriThane** can be recoated during the tack stage of drying. **500** series dries very quickly and in practice this allows multiple coats to be applied at one time. However, if **TriThane** 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. **TriThane** is designed for a 25 – 50% reduction when applied by conventional spray and 5 – 15% when applied by airless. Two reducers are used:

- AT46 Medium, 45° – 65° F.
- AT70 + AT46 Medium slow, 65° – 95° F.
- AT70 Slow, above 95° F.

APPLICATION:

Individual application procedures are given in Tech. Advisory 500 for OEM, industrial maintenance and vehicle finishing which cover suggested reducers, rates of reduction and equipment set ups.

TriThane is spray only. **TriThane** is designed for conventional spray. It is very amenable to HVLP and air assist airless but these methods require the use of slower solvents regardless of temperature. Airless spray is recommended for large surface maintenance painting such as tanks, large beams, etc. High ratio, high pressure pumps are required. Typical \dot{z} – 1 gpm house painters type pumps do not develop enough pressure for proper atomization.

CLEANUP: AT17 Wash Thinner
Rinse tools with clean AT46. AT46. can be substituted for AT17.

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

(03/20/00)

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