

Liquid Porcelain

Tile Like, Spray Acrylic Urethane, Finishing Enamel

SELECTION DATA

DESCRIPTION:

Liquid Porcelain 505 series is a non VOC compliant, high performance, spray applied, two component, air or forced dry, acrylic aliphatic urethane enamel. Acrylic urethanes like **Liquid Porcelain** 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, tile 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 from most chemicals. Formulated acrylic urethanes like **Liquid Porcelain** have the best stain and water resistance that an organic coat can offer. It is available in three gloss levels: high gloss, semigloss and matte.

USE:

Liquid Porcelain is designed as a product refinishing enamel. It is equally suitable for air dry and force curing. Typical uses include fiberglass bath enclosures, cast polyester sinks and properly prepared "formica" laminate.

505 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.

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 caustic chemical contact, permanent submersion in water or below grade use.

PHYSICAL PROPERTIES

Figures are for a mix of 4 to 1 with catalyzer unthinned.

VOC: 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: [..... 10.4 lbs.

FLASH POINT: [seta flash] 68° F.

PACKAGE VISCOSITY: 65 – 75 KU

SOLIDS:

By Weight 62 ± 1%

By Volume 46 ± 1%

COVERAGE:

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

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.

COLOR AVAILABILITY:

Liquid Porcelain is stocked in white 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 50 gallon order.

ORDER CODE: 505 + 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, 505G700 is **TriThane** (500) gloss (G) White (700).

Liquid Porcelain Hardener 505B

PACKAGING:

Quarts and Gallons at full fill. 4 to 1 mix ratio is the responsible of the user.

Sold only through dealers. Call for locations

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APPLICATION DATA

REQUIREMENTS FOR APPLICATION:

Liquid Porcelain 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 **Liquid Porcelain** 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
Iron/Steel Non Chemical...941P Tripoxy Primer

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. **Liquid Porcelain** can be recoated during the tack stage of drying. **505** series dries very quickly and in practice this allows multiple coats to be applied at one time. However, if **Liquid Porcelain** dries for 90 – 120 min. it must be allowed to dry completely for 8 hours before it is recoated.

MIXING:

Catalyzing: Mix ratio is 4:1. Pour Part B in to Part A while stirring, *then reduce*. When preparing smaller quantities, recommend staying in quart increments (24 fl.oz. of **Part A** to 8 fl.oz. of **Part B**).

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. **Liquid Porcelain** 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:

Liquid Porcelain is designed for conventional spray only. 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 1/3 – 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

(12/04/02)

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