



PRODUCT DATA

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MAR - THANE 2000 UNIVERSAL ANTI-GRAFFITI URETHANE FINISH

PRODUCT CODE: 105 - 2XX

PRODUCT DESCRIPTION: Mar-Thane 2000 is a Hi-Solids Polyisocyanate Prepolymer Urethane, specifically formulated as a universal environmental coating that exceeds industry standards for color retention, excellent adhesion, gloss durability, superb hardness for impact, mar and abrasion resistance. Its superior hard shell finish provides extensive protection against the harsh demands of caustics and acids, weathering elements of the sun, salt, humidity and fog. Used as a clear or pigmented coating, Mar-Thane 2000 is the ideal "Anti-Graffiti" Coating for preventing damage to, preserving and protecting the beauty of Natural or Previously Coated Wood, Metals, and Masonry Substrates.

INTENDED USE: The Mar-Thane 2000 System is designed to be used on the **exteriors of Chemical Tanks, and Water Storage ("non potable" fresh or salt) Tank Linings**. This system is highly suitable for coating both original or repaint equipment such as **Shop Machinery, Playground or Entertainment Equipment, Fork Lifts, Industrial Equipment and Fittings, Metal and Wood Office Furniture**. It is truly an excellent abrasion resistant coating for **Interior and Exterior Wood, Metal, and Masonry Substrates** in an array of different high traffic environments such as; **Schools (i.e.; Lockers, Locker Rooms, Shower Rooms, Bathroom Stalls, Gymnasiums, Cafeterias, Indoor/Outdoor Sports Stadiums and Facilities,); Hospitals; (i.e.; Elevators, Stairwells, Corridors, Doors, Door Casings), Laboratory Facilities and Airline Hangers**. Mar-Thane 2000 Clear and Pigmented Finishes are exceptional "Anti-Graffiti" Finishes that give the ultimate protection needed for **Aggregates (natural or polished), Bricks/Stone, Masonry (smooth or textured), Stucco Finishes, Sculptured/Smooth Cement, (i.e.; Highway Esplanades, Overpasses, Tunnels, Sound Retention Walls, Public Restrooms, Statues and Monuments), or any indiscriminate Natural Substrate that is subject to the punishing demands of the "Graffiti-Artists"**.

Mar-Thane 2000 is available in a **Clear Gloss and three Gloss Redi-Mix Colors**, along with a **Gloss White and Tint Base** suitable for tinting pastel colors, using no more than four ounces of colorant, a **Deeptone Base** suitable for tinting midtone deep colors using no more than eight ounces of colorant, and a **Masstone Base** suitable for tinting the ultra deep colors using no more than sixteen ounces of colorant. These products are packaged in five and one gallon containers.

NOTE: *Simpson Coatings Mar-Thane 2000 Tint Bases have been formulated/designed to be used with the Creanova Inc. Chroma-Chem 844 Industrial Colorant System. For best results in Gloss/Color Retention, Tint Control etc., the Chroma-Chem 844 Industrial Colorant System or an equivalent Non-Aqueous Industrial Tint System should be used when tinting the Mar-Thane 2000 Tint Bases.*

105 - 211 Mar-Thane Clear Gloss	105 - 217 Mar-Thane Deck Grey	105 - 218 Mar-Thane Jet Black	105 - 219 Mar-Thane Tile Red
105 - 220 Mar-Thane Gloss White Tint Base	105 - 221 Mar-Thane Deeptone Tint Base	105 - 223 Mar-Thane Masstone Tint Base	105 - 222 Mar-Thane Catalyst

NOTE: In some market areas, “Anti–Graffiti Coatings” are defined by Air Quality Management Districts as and/or limited to include only Clear Coatings. Please review your local Air Quality Management District Rules and Regulations for definition, clarification, and guidance.

RECOMMENDED PRIMERS FOR MAR -THANE 2000 COLORS & TINT BASES:

WOOD SURFACES:

INTERIOR: Simpson Coatings E-S-Primers #118–03X.
Simpson Coatings Vinyl Sanding Sealer #103–XXX.
Simpson Coatings Non–Stearated Sanding Sealer #102–4XX.
Simpson Coatings Non–Stearated Pigmented Lacquer Undercoat #102–47X.

EXTERIOR: Simpson Coatings E-S-Primers #118–03X.

**MASONRY, CONCRETE,
TILT UP SURFACES:** Simpson Coatings Latex Block Filler #108–031.
Simpson Coatings P.V.A. Sealer #108–011.
Simpson Coatings Water Base Epoxy Surface Conditioner #104–052C.

METAL SURFACES: Simpson Coatings Mar-Thane Zinc Chromate Primer #105–121C.
Simpson Coatings Vinyl Wash Primer DOD-P-15328 #111–055C
Simpson Coatings Rust Buster #101–572.
Simpson Coatings E-S-Primers #118–03X.

SURFACE PREPARATION

WARNING!

If you scrape, sand, or remove **Old Paint**, you may release **Lead Dust**. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.** Wear a **NIOSH-Approved Respirator** to control **Lead Exposure**. Clean up carefully with a **HEPA Vacuum and Wet Mop**. Before you start, find out how to protect yourself and your family by contacting **The National Lead Information Hotline at 1-800-424-LEAD** or log on to www.epa.gov/lead.

ALL SURFACES: Must be clean, dry and free of dust, dirt, oil, grease, wax or any contamination that would adversely affect the adhesion or performance of this coating. Remove all oil, dirt, and other contaminants by cleaning with a V.O.C. compliant commercial cleaner/degreaser. Rinse thoroughly and allow to dry. Be sure to check the surface for dried powdery residue after it has dried. If the surface has residue, rinse the surface thoroughly again and allow to dry.

ALL MILDEWED SURFACES: Existing mildew should be removed by washing the affected areas with a 3:1 solution of water and chlorine bleach or reliable commercial mildewcide. Keep applying until all discoloration is completely removed. Rinse thoroughly and allow surface to dry before recoating.

NEW SURFACES

NEW WOOD SURFACES: Where appropriate, sand the surface until smooth. If mildew is present remove as described above. All new wood surfaces that are to be coated with Mar–Thane 2000 Solid Colors or Tinted Bases should be primed. The exterior wood should be primed with one coat of Simpson Coatings E-S-Primer #118–03X. The interior wood should be primed with Simpson Coating E-S-Primer #118–03X, allowing a minimum of 16 to 24 hours dry time before recoating with the finish coat, or use Simpson Coatings Non–Stearated Pigmented Lacquer Undercoat #102–4XX, allowing 1 to 2 hours dry time to sand/recoat with the finish coat. When new wood is to be finished with Mar–Thane 2000 Clear Gloss #105–211, one self-seal coat should be applied at 3.0 to 5.0 mils wet to achieve 1.0 to 1.5 mils dry, allowing 2 to 4 hours dry time before applying the recommended two finish coats.

SURFACE PREPARATION continued

**NEW MASONRY, CONCRETE,
TILT UP OR UNCOATED
MASONRY SURFACES:**

Prepare New Masonry, Concrete, Tilt Ups, or Uncoated Masonry Surfaces as directed with All Surfaces. For uncoated masonry, concrete and tilt up surfaces that are to be coated with Mar–Thane 2000 Solid Colors or Tinted Bases, fill with Simpson Coatings Latex Block Filler #108–031. Allow a 16 to 24 hour dry time, followed by a seal coat of Simpson Coatings Water Base Epoxy Surface Conditioner #104–052C. **(Water Base Epoxy Surface Conditioner #104–052C must be recoated within 24 hours).** Allow 16 to 24 hours to dry before recoating with the finish product.

CAUTION: All new masonry, concrete, substrates should dry/cure for a minimum of 30 days before coating. Very dense, non-porous, or chemically treated concrete may require overall etching, abrasive blasting or sanding to achieve proper coating adhesion.

NEW METAL SURFACES:

Prepare new metal surfaces as directed with all surfaces. For all new metal surfaces that are to be finished with Mar–Thane 2000 Solid Colors or Tint Bases, apply one coat of Mar–Thane Zinc Chromate Primer #105–121C **(allow the Zinc Chromate Primer Base and Converter to set for 30 minutes for induction time)**. Dry time to recoat with the finish product is 4 to 6 hours. For those new metal surfaces that are to be finished with Mar–Thane 2000 Clear Gloss #105–211, one self-seal coat should be applied at 3.0 to 5.0 mils wet to achieve 1.0 to 1.5 mils dry allowing 2 to 4 hours dry time before applying the recommended two finish coats.

**FERROUS, GALVANIZED
SURFACES:**

Galvanized Steel surfaces can be variable substrates due to the changing process of the Galvanizing Industry and/or the age of the galvanizing. Etch all galvanized and ferrous metal surfaces that are to be coated with Mar–Thane 2000 Solids Colors and Tint Bases with Simpson Coatings Pretreatment Coatings Vinyl Wash Primer #111–055C DOD-P-15328, a two component system composed of 4 parts of #111–055A and one part of #111–055B applied at .25 to .5 mils dry. **Allow 30 minutes to 1 hour dry time** to recoat with Mar–Thane Zinc Chromate Primer #105–121C. Dry time to recoat with Mar–Thane 2000 Solid Color and Tint Base Finishes is 16 to 24 hours. For those galvanized, ferrous metal substrates that are to be coated with the Mar–Thane 2000 Clear Gloss #105–211, one self-seal coat should be applied at 3.0 to 5.0 mils wet to achieve 1.0 to 1.5 mils dry. Allow 2 to 4 hours dry time before applying the recommended two finish coats.

NOTE: The Pretreatment Vinyl Wash Primer is intended to be used as surface treatment to increase maximum adhesion in the primer system. To insure best results, the pretreatment must be recoated within 4 hours with Mar–Thane Zinc Chromate Primer as soon as the material is sufficiently dry as directed.

PREVIOUSLY COATED SURFACES

**ALL PREVIOUSLY
COATED SURFACES:**

Clean thoroughly as directed for all surfaces. Remove all loose peeling paint and chalk oxidation by sanding or pressure washing. Glossy surfaces should be sanded and dulled for maximum adhesion. Sandblasting or high pressure, water jet is recommended for the more severely deteriorated surfaces.

**PREVIOUSLY COATED
WOOD SURFACES:**

Clean thoroughly as directed above for all previously coated surfaces. Spot prime all areas that have been sanded to bare wood with Simpson Coatings E-S-Primer #118–03X (for both interior or exterior wood surfaces). Allow a minimum of 16 to 24 hours dry time before recoating with the finish coat.

SURFACE PREPARATION continued

PREVIOUSLY COATED
MASONRY, CONCRETE,
TILT UP SURFACES:

Scrape, wire brush, mechanical grind or sand blast to remove loose, unsound concrete or any efflorescence, laitance (white powder or dust) from the surface. This should be followed by compressed air removal. Surfaces with mold or mildew should be cleaned with a commercial mildew remover and rinsed thoroughly with water. Remove any mold release oil with Simpson Coatings Xylol #301–011. **(Except as restricted by your local Air Quality Management District)**. Fill very porous substrates with Simpson Coatings Latex Block Filler #108–031. Allow a 16 to 24 hours dry time, followed by one coat of Simpson Coatings Water Base Surface Conditioner #104–052C (must be recoated within 14 days). A 16 to 24 hour dry time must be allowed before recoating with finish coat.

PREVIOUSLY COATED
METAL SURFACES:

Remove loose rust, mill scale and deteriorated previous coatings by wire brushing or coarse sand paper. If rust is underneath the paint film, remove the paint finish until a ring of bright metal is exposed around the edges of the rusted areas. Sand blasting or mechanical sanding is recommended for heavily contaminated surfaces. Prime coat with Simpson Coatings Rust Buster #101–572, allowing 24 hours drying time, followed by one prime coat of Mar–Thane Zinc Chromate Primer #105–121C at 300 square feet per gallon. Dry time to recoat is 4 to 6 hours.

APPLICATION

Estimation of practical coverage of this product can be variable and is completely dependent on application technique i.e., (determine amount of wet film thickness application to achieve dry film thickness) and the porosity of the substrate.

Drying time and curing time can be adversely affected by extreme high/low substrate and atmospheric temperature variances, along with extreme high/low humidity. Apply when **air, product and surface temperatures** are between **60 °F – 90 °F**, the relative humidity is no greater than **85%**, and surface is at least **5 °F** above the dew point.

Mix together four parts Mar–Thane 2000 Base #105–2XX with one part Mar–Thane 2000 Catalyst #105–222. Mix only enough material that can be used in a pot life at 80 °F for 6 hours or 100 °F for 3 hours. Do not re-catalyze into expired material! Stir or Agitate contents thoroughly. Do not attempt to use other manufacturers converters with the Mar–Thane base and do not mix Mar–Thane 2000 with other products.

ALL WOOD SURFACES:

Apply Simpson Coatings Mar–Thane 2000 Finishes #105–2XX with Professional Airless, Conventional or HVLP Spray Technology. Apply two coats of Mar–Thane 2000 in a cross-hatched pattern at 2.5 to 5.0 mils wet to achieve 1.0 to 1.5 mils dry, allowing 2 to 4 hours in between each coat. For unpainted, porous, or heavily grained soft wood a third coat may be required. A 24-hour dry time should be allowed for light foot traffic. For heavy equipment such as forklifts, autos, heavy foot traffic, high-pressure washing or chemical washing, allow a full 7 to 10 day cure time.

MASONRY, CONCRETE &
TILT UP SURFACES:

Apply two coats of Mar–Thane 2000 in a cross hatched pattern at 2.5 to 5.0 mils wet to achieve 1.0 to 1.5 mils dry, allowing the first coat to dry 2 to 4 hours. A 24 hour dry time must be allowed for light foot traffic, a full 7 to 10 day cure time is required for heavy equipment traffic and for the Mar–Thane 2000 coating to be thoroughly graffiti resistant.

APPLICATION continued

ALL METAL SURFACES:

Apply two coats of Mar–Thane 2000 in a cross hatched pattern at 2.5 to 5.0 mils wet to achieve 1.0 to 1.5 mils dry, allowing 2 to 4 hours in between each coat. A 24-hour dry time must be allowed for light foot traffic. For areas such as elevator doors, stairwells, metal transports, or where heavy equipment is used, allow a full 7 to 10 day cure time.

PREVIOUSLY COATED SURFACES:

For previously painted surfaces a test patch of the Mar–Thane 2000 mixture is recommended. If lifting or wrinkling occurs, refrain from using the Mar-Thane System. If no lifting occurs, apply two coats at 2.5 to 5.0 mils wet film thickness to achieve 1.0 to 1.5 mils dry film thickness, conduct crosshatch adhesion test.

THINNING/CLEAN – UP

AIR ATOMIZED/AIRLESS SPRAY:

DO NOT THIN THESE PRODUCTS. These products are ready-to-apply as packaged. Thinning these products can adversely affect film building properties, dry/cure times, and volatile organic compound (V.O.C.) emissions. Please review the U.S. E.P.A. National Rule and your Local Air Quality Management Districts Rules and Regulations regarding V.O.C. emissions and Clean Up Products Regulations for Architectural and Industrial Maintenance Coatings.

CLEAN – UP:

Use Simpson Coatings Mar–Thane 2000 Thinner #309–026 or Simpson Coatings Acetone #304–013 for cleaning Application Tools and Spray Equipment only! **EXCEPT AS RESTRICTED BY YOUR LOCAL AIR QUALITY MANAGEMENT DISTRICT.**

EQUIPMENT RECOMMENDATIONS

SPRAY:

Mar–Thane 2000 Catalyzed Urethane Finish can be applied by Professional Airless, Conventional or HVLP Spray Technology.

105-2XX Mar-Thane 2000 Universal Anti-Graffiti Urethane Finish Technical Data/Physical Properties

Resin Type: Polyurethane
Solvents: Acetone, Aromatics, Esters & Ketones
Coatings V.O.C. < 340 G/L

ANALYSIS

PRODUCT	ANALYSIS					PRODUCT COVERAGE				
	Pigment % by weight	% Solids by weight	% Solids by volume	Gloss	Viscosity	Wt. Per Gallon	Recommended Dry Film Thickness	Recommended Wet Film Thickness	Practical Coverage (assume 15% material loss)	Theoretical Coverage @ 1 mil D.F.T.
105-211 Mar-Thane Clear Gloss	26.3-26.9%	34.5-36.5%	26.4-28.4%	85+	20-25 Sec #2 Zahn	7.3-7.9	1.0-1.5 mils	3.0-5.0 mils	230-300 sq. ft.	275-325 sq. ft.
105-217 Mar-Thane Deck Grey	3.8-4.4%	59.3-61.3%	41.9-43.9%	85+	70-80 KU	9.7-10.3	1.0-1.5 mils	3.0-5.0 mils	230-300 sq. ft.	275-325 sq. ft.
105-218 Mar-Thane Jet Black	22.4-24.7%	49.0-51.0%	39.7-41.7%	85+	70-80 KU	7.9-8.5	1.0-1.5 mils	3.0-5.0 mils	230-300 sq. ft.	275-325 sq. ft.
105-219 Mar-Thane Tile Red	59.5-61.5%	58.4-60.4%	41.1-43.1%	85+	70-50 KU	9.5-10.1	1.0-1.5 mils	3.0-5.0 mils	230-300 sq. ft.	275-325 sq. ft.
105-220 Mar-Thane Gloss White & Tint Base	* Product is short filled 4 oz. for tinting purposes. Do not exceed 4 oz. of tinting colorants per gallon.	59.5-61.5%	41.9-43.9%	85+	70-80 KU	8.9-10.2	1.0-1.5 mils	2.3-2.5 mils	400-425 sq. ft.	425-450 sq. ft.
105-220 Mar-Thane Gloss White & Tint Base		59.5-61.5%	41.9-43.9%	85+	70-80 KU	8.9-10.2	1.0-1.5 mils	2.3-2.5 mils	400-425 sq. ft.	425-450 sq. ft.
105-221 Mar-Thane Deepstone Tint Base	* Product is short filled 8 oz. for tinting purposes. Do not exceed 8 oz. of tinting colorant per gallon.	54.5-56.5%	41.0-43.0%	85+	70-80 KU	8.0-9.3	1.0-1.5 mils	2.3-2.5 mils	400-425 sq. ft.	425-450 sq. ft.
105-223 Mar-Thane Masstone Tint Base	* Product is short filled 16 oz. for tinting purposes. Do not exceed 16 oz. of tinting colorants per gallon.	36.0-38.0%	27.5-29.5%	85+	20-25 Sec #2 Zahn	7.3-7.9	1.0-1.5 mils	2.3-2.5 mils	400-425 sq. ft.	425-450 sq. ft.

Dry times @ 77° F and 50% R.H.

Tack Free: 30-60 Minutes

Handle: 1-2 Hours

Sand/Recoat: 2-4 Hours

Full Dry/Cure: 9-10 Days

Special Instructions: Induction Time: Immediately Pot Life: 6 Hours @ 80°F, and 3 Hours @ 100°F. * Use only non-aqueous industrial tinting colorants.

Proposition 65 Warning

WARNING: THIS PRODUCTS CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

TECHNICAL SERVICE: Technical Services are available through Simpson Coatings Technical Service Support at 1-800-877-5997

LIMITED WARRANTY: The statements on this bulletin product label, or by any of our agents concerning these materials are given for information only. They are believed to be true and accurate and intended to provide a guide to approved construction practices and materials. As workmanship, weather, construction equipment, quality of other materials and other variables affecting results are all beyond our control. The Simpson Coatings Group does not make nor does it authorize any agent or representative to make any warranty of MERCHANTABILITY OR FITNESS for any purpose or any other warranty, guarantee or representation, expressed or implied, concerning this material except that it conforms to Simpson Coatings quality control standards. Any liability whatsoever of Simpson Coatings Group to the buyer or user of this product is limited to the purchaser's cost of the product itself.