



GEMTHANE ALUMINIZED PRIMER

TECHNICAL DATA

ALUMINIZED PRIMER / TOPCOAT

THE PRODUCT AND ITS USES

GemThane Aluminized Primer is an aluminum filled single component polyurethane coating system designed for use as a primer and/or topcoat. GemThane Aluminized Primer will cure at ambient temperatures down to -5°C (15°F). It bonds exceedingly well to problem surfaces such as galvanized metal, aluminum and rusty steel. Having a surface tension lower than penetrating oil ensures a tenacious bond to these surfaces. It cures to form a seamless protective film that prevents most acids, alkalis and solvents from attacking the surface beneath.

GemThane Aluminized Primer is typically applied at a rate of 300 - 400 square feet per Imperial Gallon (6 - 8 square meters per litre), depending on the porosity of the substrate, to yield 4 - 5 wet mils or 2 - 2.5 dry mils.

TECHNICAL INFORMATION

PROPERTY	TEST DESCRIPTION	RESULTS
Application Temperatures	N/A	-10°C (15°F) to + 50°C (120°F)
Initial Setting Time	@ 23°C/70°F	approx. 2 hours
Curing Time (before initial service)	@ 23°C/70°F	approx. 4 - 6 hours
Recoat Time*	@ 23°C/70°F	up to 48 hours
Theoretical Solids	Conversion to solids by volume	50%
Volatile Organic Compounds (VOCs)		360 grams/litre
Theoretical Coverage	N/A	960 sq. ft/gal/mil, 23 sq. metres/litre/25 microns
Adhesion	ASTM D4541	500 psi
Hardness	ASTM D-2240 (Shore D)	75
Flexibility	ASTM D-522	180° over 1/4" mandrel
Impact Resistance	ASTM D-2794	Greater than 160 in./lb
Ultraviolet Resistance	ASTM G-154	Good (slight darkening over time)
Temperature Resistance	ASTM D-870	-40°C (-40°F) to +90°C (195°F)
	ASTM D-471	less than 3%
Service Temperature	ASTM D-870, D-2485	-40°C (-40°F) to +50°C (120°F)
Colors		Silver Metallic only

*However, recoat window varies depending on the spray equipment temperature setting, the ambient conditions, product temperature/thickness, and the temperature of the substrate being coated.

NOTE: All statements, technical information and recommendations contained herein are typical of results obtained under laboratory conditions and are not intended to be used as contract specifications. For specification guidelines please contact Madison Chemical.

APPLICATION INSTRUCTIONS

CONTACT MADISON FOR DETAILED APPLICATION INSTRUCTIONS

A. SURFACE PREPARATION

- 1) Ensure that the surface is clean, dry and uncontaminated. Proceed only if the substrate temperature is more than 3°C (5°F) above the dew point temperature during surface preparation and coating application. Humidity over 85% may impair adhesion and/or ruin the finish.
- 2) On rusty or older galvanized metal, use scraper and wire brush to remove oxide, loose rust, and any prior coating. Grease should be removed with tri-sodium phosphate (TSP), detergent and hot water applied with a high pressure power washer. Rinse and let dry completely.
- 3) On concrete use power wash as above.

B. APPLICATION OF COATING

- 1) Stir thoroughly.
- 2) Can be applied by brush, roller or single component airless spray equipment. Wear rubber gloves, safety goggles and coveralls as GemThane Aluminized Primer is difficult to remove once it sets.
- 3) To avoid thickening of unused material, remove from the container only the amount of GemThane Aluminized Primer needed and reseal the balance.
- 5) Apply GemThane Aluminized Primer at an application rate of 6 - 8 sq. meters/litre (300 - 400 sq.ft./gal.) to yield 4 - 5 wet mils
- 6) Recoat within 48 hours.

C. CLEAN-UP AND STORAGE

- 1) For clean-up use only GemThane VR-1 Reducer.
- 2) Store at or near room temperature and keep containers tightly sealed. between 10°C (50°F) and 27°C(80°F). Avoid dropping or subjecting the material to strong force.
- 3) DO NOT ALLOW MATERIALS TO FREEZE.

HEALTH AND SAFETY

Coatings that contain aluminum might build up gas over time. To avoid any sudden burst of gas, open the container carefully, thus allowing the gas to escape slowly. Avoid dropping or subjecting the material to strong force.

GemThane Aluminized Primer is intended for industrial use only. It contains no monomeric isocyanate but may nevertheless cause respiratory distress in some people. Provide ample ventilation. Wear a fresh air respirator when using in confined areas or when spraying. Flammable; avoid sparks or open flames. If swallowed, do NOT induce vomiting as this will cause additional throat irritation; call physician. If splashed on skin, remove immediately with rubbing alcohol and then wash with soap and water. If splashed in eyes, wash liberally with clean water and contact a physician; temporary irritation of eyes may last several days. Applicators should use rubber gloves, safety goggles and protective clothing. Resins are inert when cured. See MSDS for more information.

LIMITED TWO YEAR WARRANTY

Madison will replace any product which, in service for which it is suitable, fails to meet specifications within two years of sale and which is proven to be defective when applied according to instructions by a Madison Approved Applicator or Certified OEM Applicator. Madison accepts no responsibility or liability for any other loss, claim, damage, injury or expense, direct or consequential, in contract or negligence. This product replacement warranty is in lieu of any other right, warranty, guarantee or condition, statutory or otherwise, expressed or implied, whether as to fitness for a particular purpose or as to merchantable quality or otherwise.

The information contained herein is believed to be accurate as of the date of publication. Madison reserves the right to change product specifications without notice.

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