



GEMTHANE PRECATALYZED AROMATIC

TECHNICAL DATA

GENERAL PURPOSE INTERIOR COATING

THE PRODUCT AND ITS USES

GemThane PreCatalyzed Aromatic is a single component aromatic polyurethane coating that provides a durable, easy-to-clean surface. Excellent impact, thermal shock and abrasion resistance are also characteristics of this coating. The product will cure at ambient temperatures down to -10°C (15°F) and will chalk and darken somewhat when exposed to UV or atmospheric elements.

GemThane PC Aromatic is designed to protect concrete, steel and wood in a wide range of industrial applications such as floors, walls and machinery. For most applications, 8 to 10 dry mils of coating thickness is desirable, typically applied in 2 coats of 6-7 wet mils each. It is possible to apply more per coat, however pimpling will occur unless a catalyst is used to promote even cure. (An optional catalyst is available).

Of all the GemThane products, GemThane PC Aromatic is the most suitable for protecting theatre stage and dance floors where it outlasts epoxies by more than 2 to 1.

TECHNICAL INFORMATION

PROPERTY	TEST DESCRIPTION	RESULTS
Application Temperatures	N/A	-10°C(15°F) to 50°C(120°F)
Initial Setting Time	@ 70°F/20°C	2-3 hours
Curing Time Before Handling	@ 70°F/20°C	4-6 hours
Ultimate Cure	@ 70°F/20°C	7-10 days
Recoat Time*	@ 70°F/20°C	Up to 48 hours
Solids Content	Conversion to Solids by Volume	65%
Volatile Organic Compounds (VOCs)	ASTM D-2369	276 grams per litre
Theoretical Coverage	N/A	1050 ft ² /gal/mil 25 m ² /litre/25 microns
Adhesion	ASTM D-4541 (SSPC-SP5)	Greater than 600 psi
Flexibility	ASTM D-522	180° over knife edge @ 10 mils
Abrasion Resistance	ASTM D-4060	Regular Version - Good CM Version - Excellent
Resistance to Cathodic Disbondment	CSA Z-245 (65°C, 48 hours, 20 mils)	Less than 10 mm. disbondment
Chemical Resistance	ASTM D-543	Splash and spill
Hardness (Shore A)	ASTM D-2240 Shore "D"	45 ±5
Impact Resistance	ASTM D-2794 (20 mils)	Greater than 100 in lbs
Water Absorption	ASTM D-471	Less than 3%
Temperature Resistance	ASTM D-870, D-2485	-40°C (-40°F) to +50°C (120°F)
Colors		Consult your sales representative

*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) General** - This section applies to **ALL** substrates. The surface must be free of moisture, dust, oil and other contaminants. Degrease by scrubbing with hot water and detergent (preferably trisodium phosphate) or use a hot water high pressure wash. 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. On previously painted surfaces, remove loose coating, then test for compatibility and adhesion. If appears incompatible in any way or if adhesion is poor, completely remove prior coating.
- 2) Metal** - For general use, roughen surface by sanding, grinding or power wire brushing. Check adhesion; if inadequate, use GemThane Aluminized Primer before applying GemThane PC Aromatic. For immersion service and other critical applications, blast to a near-white surface with a 2.5 mil profile. Welds and corners require extra coating. Avoid thinning if possible.
- 3) Concrete** - Concrete *must* be fully cured. On floors, clean as above, then roughen with blasting or acid etching to remove laitance. Concrete block can be coated directly using GemThane PC Aromatic but, for a pinhole-free result, a quality cementitious/rendering compound should be applied first. Use 10-20% Reducer in first coat of GemThane PC Aromatic.
- 4) Wood** - New wood can be sanded lightly before coating. Do not coat green or damp wood. Use 10-20% Reducer in first coat. For previously painted surfaces, see **General**. Not suitable where wood is exposed to constant moisture (e.g. docks).

B. APPLICATION OF SYSTEM

- 1) Before application, thoroughly mix GemThane PC Aromatic to disperse any settling that may have occurred. If thinning is required use up to a maximum of 20% GemThane VR-1 or VR-2 Reducer. This product will thicken quickly when exposed to air, so dip out the quantity required for working for an hour or two and re-seal the can.
- 2) GemThane PC Aromatic can be applied by brush, roller or single component airless spray equipment. (Contact Madison for detailed application instructions).
- 3) For typical spray application, use a tip in the .020" range with a medium fan. Cure-to-touch time is approximately 2 hours. Cure for light traffic is 8-12 hours. The surface may remain tacky for up to 24 hours.
- 4) For optimum intercoat adhesion, recoat within 48 hours. If the recoat time is exceeded, sand the previous layer until the gloss is removed and apply the next coat.

C. CLEAN-UP AND STORAGE

- 1) GemThane PC Aromatic will react with humidity and moisture. Keep container tightly sealed; store upside down. Avoid dropping or subjecting the material to strong force. For clean-up, use GemThane VR-1 or VR-2 Reducer, M.E.K. or Xylol. Other solvents may react with the product.
- 2) Store between 10°C (50°F) and 27°C (80°F). **DO NOT FREEZE**. Use product within 6 months of receiving.

HEALTH AND SAFETY

GemThane PC Aromatic might build up gas over time. To avoid any sudden burst of gas, open container carefully, thus allowing the gas to escape slowly. Avoid dropping or subjecting the material to strong force. GemThane PC Aromatic is intended for industrial use only. It contains no monomeric isocyanate but may nevertheless cause respiratory distress in some people. Flammable; avoid sparks or open flames. Provide ample ventilation. Wear a fresh air respirator when using in confined areas or when spraying. 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. Thus, applicators should wear rubber gloves, safety goggles and protective clothing. 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.

Revised May 2005 v02



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