



GemThane® MG 220

TECHNICAL DATA

PROTECTIVE PRIMER / SEALER

THE PRODUCT AND ITS USES

GemThane® MG 220 is a two component, solvent free epoxy coating which is supplied in a user-friendly 1:1 ratio mix-and-apply format. It is similar to MG201 but offers higher film build.

On steel and ductile iron, it achieves extremely high adhesion values on hand-tool-prepared surfaces, making it perfect for coating small parts and hard-to-sandblast areas on larger structures. On concrete it is highly resistant to off-gassing and bonds tenaciously, making it the ideal base coat for concrete tanks, floors and walls. On wood, it actually strengthens and fortifies the substrate, even damaged or rotted sections.

This is a non-pigmented product but it can be pigmented as required. An ideal basecoat for two-coat systems, MG 220 is formulated for maximum recoatability. For non-critical applications, this polyamide-amine epoxy hybrid product may be also used as a top coating, which will provide better chemical and corrosive resistance than pure polyamide based epoxy coatings.

TECHNICAL INFORMATION

PROPERTY	TEST DESCRIPTION	RESULTS
Application Temperatures	N/A	10°C (50°F) to 65°C (150°F)
Cure to Handling	@ 25°C (77°F)	6 hours
Pot Life	@ 25°C (77°F)	within 1 hour
Recoat Time*	@ 25°C (77°F)	minimum recoat time 6 hours maximum recoat time 48 hours
Ultimate Cure Time	@ 25°C (77°F)	7 days
Solids Content	Conversion to Solids by Volume	100%
Volatile Organic Compounds (VOCs)	ASTM D-2369	0 grams/litre
Theoretical Coverage	N/A	40m ² /L/25 microns (1640 ft ² /USgallon/mil)
Abrasion	ASTM D-4060 (Taber CS-17, 1kg, 1000 cycles)	60mg
Hardness	ASTM D-2240 Shore D	80
Adhesion to Prepared Concrete		Greater than the Cohesive Strength of Concrete
Adhesion to Power Tool Cleaned Steel		Greater than 1500 p.s.i.
Colors		Clear

*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 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.
- 2) Abrasive blast clean with sand or grit (G40 or coarser). DO NOT USE steel shot or non-angular media. For **steel** surfaces, blast to a Near White Blast (SSPC-SP10; NACE 2; SA 2.5), finishing with a:
 - minimum 3.0 mil (75 microns) profile for immersion;
 - minimum 2.5 mil (65 microns) profile for buried;
 - minimum 2.0 mil (50 microns) profile for atmospheric service.When this is not feasible we recommend power tool cleaning (SSPC-SP11) together with testing and inspection to ensure that the adhesion is meeting your needs. For **ductile iron** surfaces, abrasive blast to achieve a surface anchor profile of 2.5 mils or greater. Remove all rust and loose oxides. Proceed as with steel where this is not practical. For **concrete** surfaces, abrasive blast to remove any laticence. Ensure there are no visible bug holes on the surface. If so, patch to fill the holes using suitable cementitious rendering materials.

B. APPLICATION OF COATING

- 1) Do not apply if temperature is below 10°C (50°F) or if the dewpoint is within 3°C (5°F) of the temperature. All application and surface preparation should be consistent with good painting practices.
- 2) This is a two component system with a 1:1 mix ratio by volume. Stir individual components thoroughly before mixing together to assure homogeneity. Both components (Part A Resin and Part B Hardener) should be between 21°C (70°F) and 32°C (90°F) prior to mixing.
- 3) Pour Part B Hardener into Part A Resin and blend thoroughly for 3-5 minutes. To ensure complete mixing, scrape sides and bottom of containers. Incomplete mixing will result in soft spots or colour variation. Begin application immediately after mixing.
- 4) MG 220 may be applied using a trowel, putty knife, brush, 1/4" or 3/8" nap phenolic core roller or squeegee. A high pressure airless pump may also be used but thinning of the product with acetone will probably be required.
- 5) A second coat may be applied over the first, so long as it is applied within the recoat window (see above). Otherwise, roughening of the surface will be necessary to ensure good intercoat adhesion.
- 6) Allow coating to cure completely before putting into service.

C. CLEAN-UP AND STORAGE

Use Madison's VR-4 Reducer or acetone. Store closed container in a cool, dry area. Use product within 12 months of receiving.

HEALTH AND SAFETY

MG 220 is intended for industrial use only. Provide ample ventilation. Wear a fresh air respirator when using in confined areas or when spraying. Wear rubber gloves, safety goggles and protective clothing. If swallowed, DO NOT induce vomiting as this will cause additional throat irritation; contact 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 physician; temporary irritation of eyes may last several days. The finished product is completely inert.

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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