



## MARITHANE II PW

### TECHNICAL DATA

### POTABLE WATER IMMERSION COATING

#### THE PRODUCT AND ITS USES

MariThane II PW is a two component, solvent-free polyurethane protective lining for use in contact with potable water. Typical examples in a marine environment are fish holding tanks and drinking water storage vessels. The finished product is a tough, structural (rigid yet flexible), durable non-toxic polymer film which protects the lined structure from physical and chemical attack.

MariThane II PW can be spray applied using specialized plural component application equipment to any desired thickness in a single application at any ambient temperature, thus enabling fast, trouble free application and quick turnaround. The use of MariThane II PW reduces cost by improving productivity, increasing throughput and providing long-term protection. MariThane II PW is one of a comprehensive series of coatings and linings for commercial and military marine applications. For other marine-related end uses, please contact your Madison Representative.

#### APPROVALS AND LISTINGS

NSF International: NSF/ANSI Standard 61 for potable water applications. Rated D.HOT 60°C (140°F)

US Food & Drug Administration 21 CFR177.1680 for dry food contact



#### TECHNICAL INFORMATION

PROPERTY	TEST DESCRIPTION	RESULTS
Application Temperatures	N/A	-40°C(-40°F) to 65°C(150°F)
Initial Setting Time	@ 20°C/70°F	3 minutes
Curing Time Before Handling	@ 20°C/70°F	8 minutes
Curing Time Before Immersion	@ 20°C/70°F	24 hours
Ultimate Cure	@ 20°C/70°F	48 hours
Recoat Time*	@ 20°C/70°F	Within 45 minutes
Solids Content	Conversion to solids by volume	100%
Volatile Organic Compounds (VOCs)	N/A	0%
Theoretical coverage	N/A	1016 m <sup>2</sup> /litre/micron (1604 ft <sup>2</sup> /US gallon/mil)
Adhesion to steel	ASTM D-4541 (SSPC 5)	Greater than 2000 p.s.i.
Adhesion to ductile iron	ASTM D-4541	Greater than 2000 p.s.i.
Adhesion to concrete	ASTM D-4541	Greater than strength of concrete
Hardness	ASTM D-2240 Shore D	75 +/- 5
Flexibility	ASTM D-522 (20 mils)	180° over 3" mandrel
Abrasion Resistance	ASTM D-4060 (CS-17 wheels, 1 kgs weights, 1000 revolutions)	52 mg loss
Permeability	ASTM E-96 (15 mils)	0.002 perm inches
Resistance to Cathodic Disbondment	CSA Z-245 (65°C, 48 hours, 20 mils)	8 mm average radius
Chemical Resistance	ASTM D-543	Excellent; see Chemical Resistance Chart
Water Absorption	ASTM D-471	Less than 3%
Impact Resistance	ASTM D-2794 (20 mils)	Very Good; greater than 50 in. lbs.
Service Temperature	ASTM D-870, ASTM D-2485	-40°C(-40°F) to 90°C(195°F) Dry
Colors		Consult Madison 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) 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):
  - 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.For **ductile iron** surfaces, abrasive blast to achieve a surface anchor profile of 2.5 mils or greater. Remove all rust and loose oxides.  
For **concrete** surfaces, abrasive blast to remove any laticence.
- 3) See Madison Application Instructions for details.

### B. APPLICATION OF COATING

- 1) Roll or agitate individual components thoroughly before use to disperse pigments and assure homogeneity. Do not thin. Do not mix "A" and "B" together.
- 2) Spray apply coating using a two component, 1:1 mix ratio, heated airless spray unit.
- 3) Unlimited film thickness can be obtained in a single coat, multi-pass application using one of several techniques.
- 4) A second coat may be applied over the first, as long as it is within the recoat time. Otherwise, it may be necessary to roughen the surface to ensure good intercoat adhesion.
- 5) Let coating reach full cure before putting into service. Then follow pipe decontamination procedure to remove any dirt and debris.

### C. CLEAN-UP AND STORAGE

- 1) MariThane II PW will react with humidity and moisture. Keep containers tightly sealed; store upside down. For clean-up, use Madison VR-1 Viscosity Reducer, M.E.K. or a 50:50 blend of M.E.K. and Xylol. Other solvents may react with MariThane II PW.
- 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

MariThane II PW is intended for industrial use only. It contains no monomeric isocyanates 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. 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. Contains no known or suspected carcinogens or mutagens. See MSDS for more information. The finished product is totally inert and non-toxic.

## 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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