



## FIBRETHANE PLUS

### TECHNICAL DATA SELF-REINFORCED POLYURETHANE TANK CLADDING SYSTEM

#### THE PRODUCT AND ITS USES

FibreThane Plus is an extremely durable 100% solids, self-reinforced polyurethane system specifically formulated for the corrosion protection of underground steel fuel storage tanks. It is also UL 2215 approved for use as an interior lining system on oil/water separators.

Testing performed by Underwriters Laboratories shows that 70 mils of FibreThane Plus outperforms 100 mils of reinforced polyester in every respect making it an excellent alternative to FRP cladding systems.

#### APPROVALS AND LISTINGS

- Steel Tank Institute (STI) **STI-P<sub>3</sub>**
- Steel Tank Institute (STI) **ACT 100**
- Steel Tank Institute (STI) **ACT 100-U**
- Underwriters Laboratories (UL) **UL1746 (part II and IV)**
- Underwriters Laboratories (UL) **UL2215 (interior lining of oil/water separators)**

#### TECHNICAL INFORMATION

PROPERTY	TEST DESCRIPTION	RESULTS
Application Temperatures	N/A	-20°C(0°F) to 65°C(150°F)
Initial Setting Time	@ 20°C/70°F	Three choices from 1 to 30 minutes
Curing Time Before Handling	@ 20°C/70°F	Three times initial set time
Ultimate Cure	@ 20°C/70°F	7 days
Recoat Time*	@ 20°C/70°F	Within 45 minutes
Solids Content	ASTM D-1259	99 +/- 1%
Volatile Organic Compounds (VOCs)	ASTM D-2369	Less than 13.25 grams/litre (0.11 lbs/US gal)
Theoretical coverage	N/A	1016m <sup>2</sup> /litre/micron (1604 ft <sup>2</sup> /US gal/mil)
Adhesion to steel	ASTM D-4541 (SSPC 5)	Greater than 2000 p.s.i.
Adhesion to concrete	ASTM D-4541	Greater than cohesive strength of concrete
Hardness	ASTM D-2240 Shore D	70 +/- 5
Flexibility	ASTM D-522 (20 mils)	180° over a 1" mandrel
Abrasion Resistance	ASTM D-4060 (CS-17 wheels, 1 kgs weights, 1000 revolutions)	75 mg loss (standard version) 25 mg loss (CM version)
Resistance to Cathodic Disbondment	CSA Z-245 (65°C, 48 hours, 20 mils)	Excellent; 12 mm average radius
Ultraviolet Resistance	ASTM G-154	Will chalk and darken
Temperature Resistance	ASTM D-870, ASTM D-2485	-40°C(-40°F) to 60°C(140°F) Wet -40°C(-40°F) to 90°C(195°F)Dry
Colors		Approximately 20 choices

\*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 2.0 mil profile (51 micron)
- 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 using a plural component, 1:1 mix ratio, heated airless spray unit.
- 3) Unlimited film thickness can be obtained in one continuous coating operation, using one of several techniques. For typical applied thickness for your application, please contact Madison for detailed instructions.
- 4) A second coat may be applied over the first, so long as it is applied within the recoat window. Otherwise, roughening of the surface will be necessary to ensure good intercoat adhesion.
- 5) Allow coating to cure completely before putting into service.

### C. CLEAN-UP AND STORAGE

- 1) This material will react with humidity and moisture. Keep containers tightly sealed and 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 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

Product 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. 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 trace amounts of ingredients which may cause skin cancer following prolonged direct skin contact. Therefore commonly used skin protection is recommended. See MSDS for more information. 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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