Madison Chemical Industries Inc.

GP II (E) TOUCH-UP

TECHNICAL DATA **FOR TOUCH-UP AND SMALL PROJECTS**

THE PRODUCT AND ITS USES

GP II (E) Touch-Up is a two component, solvent free polyurethane epoxy hybrid coating with a mastic (thick) consistency. This material, available in kit form, is designed for manual touch-up and repair of holidays and damaged areas of Madison's rigid polyurethane pipeline coatings. It is also suitable for small coating jobs. GP II (E) Touch-Up combines the chemical resistance and moisture tolerance of epoxy coatings with the adhesion, impact and abrasion resistance of rigid polyurethane systems. It is therefore well suited to high humidity and field applications.

GP II (E) Touch-Up has a 1:1 mix ratio and when applied by brush or trowel, it cures to form a hard, durable resilient coating. The finished product is a non-toxic polyurethane/epoxy solid with excellent resistance to chemicals, cathodic disbondment, and corrosion. It is well suited to most immersion and subterranean environments. GP II (E) Touch-Up cures readily at temperatures down to 50°F (10°C). Do not use if temperature is expected to fall below 40°F (5°C).

TECHNICAL INFORMATION

PROPERTY	TEST DESCRIPTION	RESULTS
Application Temperatures	N/A	10°C(50°F) to 65°C(150°F)
Pot Life	N/A	30 minutes
Initial Setting Time	N/A	5 hours
Curing Time Before Handling	@ 20°C/70°F	24 hours
Recoat Time*	@ 20°C/70°F	48 hours
Ultimate Cure	@ 20°C/70°F	7 days
Solids Content	ASTM D-1259	100%
Volatile Organic Compounds (VOCs)	ASTM D-2369	0%
Adhesion to steel	ASTM D-4541 (SSPC 5)	Greater than 1300 p.s.i.
Hardness	ASTM D-2240 Shore D	65 +/- 5
Abrasion Resistance	ASTM D-4060 (CS-17 wheels, 1 kgs weights, 1000 revolutions)	200 mg
Chemical Resistance	ASTM D-543	Excellent; see Chemical Resistance Chart
Impact Resistance	ASTM G-14 (18 mils)	30 in. lbs.
Temperature Resistance	ASTM D-870, ASTM D-2485	-40°C(-40°F) to 70°C(160°F) Wet -40°C(-40°F) to 90°C(195°F) Dry
Color		Contact your 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 latiance.
3) On previously coated surfaces, use coarse sandpaper or a brush blast to roughen surface and provide an anchor pattern in the prior coating. See Madison Application Instructions for details.

B. APPLICATION OF COATING

1) Obtain a clean, dry mixing container. Place equal amounts of “A” and “B” in the container.
2) Stir the mixture thoroughly until a completely uniform color is attained.
3) Apply by brush or spatula to areas in need of coating or repair.
4) A second coat may be applied over the first provided that the second coat is applied within the recoat time; otherwise, intercoat delamination will occur. If the recoat time lapses, abrade the surface of the first coat using coarse grit sandpaper or brush blast before applying the second coat.
5) GP II (E) Touch-Up may be used on its own for small jobs.

C. CLEAN-UP AND STORAGE

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

GP II (E) Touch-Up 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 cartridge type respirator when using in confined areas. 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 cold water for 15 minutes and contact physician; temporary irritation of eyes may last several days. Contains no coal tar and is not known to cause cancer in humans, but treat material product as possible carcinogen. The finished product is inert and non-toxic. 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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