



# TECHNICAL DATA

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## PIPE MATE 1 (16836) PIPE COATING REPAIR EPOXY

### Product Description

A 100% solids epoxy-amine coating formulated for excellent chemical resistance and maximum adhesion to steel. It is especially designed as a repair material for various pipe-coating systems such as: polyurethane, fusion bonded epoxy, standard epoxy, etc.

### Features

- Excellent adhesion directly onto properly prepared steel and various coating systems.
- Zero VOC.
- Outstanding performance properties.
- May be applied by brush, roller or trowel.
- No solvent odor.
- Excellent resistance to cathodic disbondment.
- Hard, tough abrasion resistant coating.

### Recommended Uses

Engineered as a pipe coating repair kit for welded joints, fittings, holidays or other damaged areas in an existing coating system. May be applied to most properly prepared pipe coating systems.

### Primers

**Steel:** Normally none.

**Other:** Contact ITW Futura Coatings for a recommendation.

### Typical Properties

|                                       |   |
|---------------------------------------|---|
| <b>Solids by Volume</b>               | 100%  |
| <b>Volatile Organic Compounds</b>     | 0.0 lb/gal (0 g/l)  |
| <b>Theoretical Coverage</b>           | 1604 ft <sup>2</sup> /gal @ 1 mil<br>(3.8 m <sup>2</sup> /gal @ 1 mm) |
| <b>Recommend DFT</b>                  | 20 – 60 mils<br>(0.5 – 1.5 mm)  |
| <b>Number of Coats</b>                | 1 or 2  |
| <b>Mix Ratio</b> (by volume)          | 4”A” : 1”B”   |
| <b>Flash Point</b> (PMCC)             | 300°F (149°C)   |
| <b>Shelf Life</b> @ 60-90°F (16-32°C) | Part A 12 months<br>Part B 12 months                                  |
| <b>Color</b>                          | Standard Gray   |

### Specification Data

|  |   |
|--|---|
| <b>Abrasion Resistance</b><br>ASTM D 4060 – CS 17              | 65 mg loss  |
| <b>Adhesion</b><br>ASTM D 4541 (on blasted steel)              | >1000 psi (>6.9 mPa)  |
| <b>Hardness</b> – ASTM D 2240                                  | 92 Shore “D”  |
| <b>Dielectric Strength</b><br>ASTM G 62                        | >650 volts / mil  |
| <b>Chemical Resistance</b><br>30 days @ 75°F (24°C)            | Excellent resistance to water, saltwater, dilute acids and solvents |
| <b>Permeability</b> – ASTM E 96<br>(50 mil dry film thickness) | 0.1 U.S. perms<br>10.06 metric perms                                |
| <b>Impact</b> – ASTM G14                                       | 30 in-lb  |
| <b>Cathodic Disbondment</b><br>ASTM G 95 – Average Radius      | 6 mm<br>14 days @ 77°F (25°C)                                       |
| <b>Temperature Resistance</b><br>ASTM D 573 - dry              | Continuous 200°F (93°C)<br>Intermittent 250°F (120°C)               |

### Ordering Information

|                         |                          |
|-------------------------|--------------------------|
| <b>Packaging:</b>       | 5 gal kits               |
| <b>Shipping Weight:</b> | 12.7 lb/gal (5.8 kg/gal) |

# APPLICATION INFORMATION

## PIPE MATE 1

### Surface Preparation

Remove all oil, grease or other contaminants from the surface to be coated in accordance with SSPC-SP 1.

**Steel and Cast Iron:** Abrasive blast to a Commercial Blast in accordance with SSPC-SP 6 or better, and obtain a 3-4 mil (75-100 μ) angular anchor pattern.

**Existing Coatings:** Dull the gloss and roughen the existing coating by blasting or power abrading. Feather edge into existing coating system a minimum of 4 inches. Wipe the area with clean MEK and coat as soon as the surface is dry.

**Other:** Contact ITW Futura Coatings for specific surface preparation and primer recommendations.

### Mixing

Power mix each component separately, then combine at a ratio of 4"A" to 1 "B" by volume and power mix to a smooth consistency.

### Thinning

**DO NOT THIN**

### Pot Life

| Material Temperature | Time          |
|----------------------|---------------|
| 60°F (15°C)          | 20 minutes    |
| 75°F (24°C)          | 15-20 minutes |
| 90°F (32°C)          | 15 minutes    |

**Note:** Mix only enough material that can be used within the pot life shown.

### Application Conditions

|                  | Normal               | Minimum        | Maximum          |
|------------------|----------------------|----------------|------------------|
| <b>Material*</b> | 75-90°F<br>(24-32°C) | 65°F<br>(18°C) | 110°F<br>(43°C)  |
| <b>Surface</b>   | 75-90°F<br>(24-32°C) | 50°F<br>(10°C) | 212°F<br>(100°C) |
| <b>Ambient</b>   | 75-90°F<br>(24-32°C) | 50°F<br>(10°C) | 110°F<br>(43°C)  |
| <b>Humidity</b>  | 30-50%               | 0%             | 85%              |

\*Materials should be preheated to 75-90°F (24-32°C) prior to use. Surface temperature must be 5° F (3° C) above the dew point.

### Application Equipment

**Brush:** Use a short bristle brush using full strokes. Avoid rebrushing.

**Roller:** Use a short nap roller using full strokes. Avoid re-rolling.

### Clean Up

Use MEK or a 1:1 mix of MEK/Toluene.

### Cure Time

These times are based on a 30-50% RH. Excessive film thickness, cooler temperatures or inadequate ventilation will require longer cure times and could result in premature failure.

|                     | <u>Surface Temperature</u> |                      |                       |
|---------------------|----------------------------|----------------------|-----------------------|
|                     | 50-69°F<br>(10-21°C)       | 70-89°F<br>(21-32°C) | 90-110°F<br>(32-43°C) |
| <b>Surface dry</b>  | 1½-3 hours                 | 75-90 minutes        | 40-60 minutes         |
| <b>Hard Film</b>    | 6-8 hours                  | 3 hours              | 2½ hours              |
| <b>Recoat (min)</b> | 1½-3 hours                 | 75-90 minutes        | 40-60 minutes         |
| <b>Recoat (max)</b> | 5 days                     | 5 days               | 2 days                |
| <b>Full cure</b>    | 10 days                    | 7 days               | 4 days                |

- The use of hot air or heat lamps will permit handling in as little as 30 minutes at 150°F (66°C).
- If the maximum recoat time has been exceeded contact ITW Futura Coatings for recommended recoat procedure.

### Safety Information

- Read the Material Safety Data Sheet (MSDS) and container labels for detailed health and safety information.
- Do not apply material in enclosed areas without adequate air exchange and ventilation.
- All application personnel must use respirators rated for organic vapors, or in confined spaces wear fresh air respirators or fresh air hoods.
- Wear protective clothing, gloves and eye protection.
- Breathing fumes or contact with the skin may cause severe allergic reactions.
- This product contains flammable solvents! Keep away from all sparks, flames and hot surfaces.
- **This product is intended for industrial use by properly trained professional applicators only.**

### Storage Conditions

- Coatings need to be protected from moisture contamination. Store drums and pails in a dry location at 55-80°F (11-27°C).
- Materials **must** be kept above 50°F (10°C).

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