



## Product Data Sheet:

### Curran 500

Rev.2-06/11

#### General Description

**Curran 500** is an advanced two part 100% solids epoxy. It is a high build coating that can be applied by brush or roller in one coat to repair and protect steel surfaces in wet/immersion environments while still providing excellent corrosion resistance.

- Chiller tube sheets
- Water boxes
- Channels
- Circulating water piping

#### Benefits:

- Outstanding immersion protection in water and hydrocarbons.
- Can withstand multiples of heat cycling events with no effect.
- Excellent foul release.
- Reduction in drag
- High Gloss finish
- Zero VOC'S (100% Solids) as supplied

#### Packaging:

3 Quart Kits: 2 Quarts base in 1 gal pail  
1 Quart Hardener in 1 qt pail

3 Pint Kits: 1 Quart base in 1 qt pail  
1 Pint Hardener in 1 pint pail

#### Coating Properties:

Color: Blue/White

Weight (lbs/ gal) 11.1

Volume solids: 100%

Flash Point > 200 F (93 C)

#### Chemical resistant:

Good for wide range of PH 2-13 and hydrocarbons at @70 F. Contact Curran International for specific chemicals/temperatures/concentrations.

#### Temperature Resistance:

- Tested in wet environment up to 170 °F (77 °C)
- Thermally cycled from 212 °F to 32 °F (20 cycles no affect).
- Contact Curran on particular service conditions.

#### Theoretical Coverage: *(as supplied)*

Based on 1 mil (25.4 microns)

1 Gallon will cover 1590 ft<sup>2</sup> (148 m<sup>2</sup>)

@ 40 mils approx coverage is 40 square ft.

#### Mix Ratios:

- Blue Color Product
  - Mixing Ratio by Weight:
  - 100 grams to 35.27 grams (A/B)
  - Mixing by Volume
  - 1.9678 : 1
- White Color Product
  - Mixing Ratio by Weight:
  - 100 grams to 33.50 grams (A/B)
  - Mixing by Volume



## Product Data Sheet:

### Curran 500

Rev.2-06/11

- 2:1

#### Application:

Below are general guidelines for applying Curran 500. Contact Curran International for detailed application procedures.

#### Surface preparation:

- New surfaces should be degreased prior to grit blasting
- SSPC-SP 3 Power tool, SSPC- SP 6 Commercial blast or, SSPC- SP 10 Near White Metal (increased surface preparation will increase coating life)
- Surface roughness: 1.0 Mil minimum surface profile.

#### Coating Application:

- Coating must be fully mixed before addition of solvent (*if needed*)

#### Film Thickness/Coat:

Brush and roll = 12-40 mils DFT

May be applied up to 250 mils

#### Environmental:

Apply when substrate temperature is between 42 F and 150 F. Substrate must be 5 F above dew point

**Thinning:** (*if required*): *Thinning is not recommended*

- Thinning: Denatured alcohol or Acetone can be utilized for thinning and clean up. No more that 25 % of either solvent can be added to the coating. Coating must be fully mixed before addition of solvent

#### Holiday Inspection:

Wet sponge testing is recommended with 67.5 VDC for 20 mils or less. Coatings above 20 mils utilize 100 volts per mil.

#### Repairs:

Should coating be mechanically damaged or a holiday is detected take the following steps to perform a repair.

- 1) Abrade area if overcoat window has expired
- 2) Apply another coat or coats of material to repair area to required DFT
- 3) Once coating has become tack free, QC repaired areas
- 4) Contact Curran International for detailed application procedures.

#### Working Times:

At 70F (21C) the usable life of mixed material is 30 min. Working times will vary depending on temperature and amount of material mixed.

#### Storage/Shelf Life:



## Product Data Sheet:

### Curran 500

Rev.2-06/11

Store in temperatures between 50F (10C) and 90F (32C)

Separate base and hardener will have a shelf life for 2 years when in original, unopened container that is not damaged and stored at the above temperature ranges.

#### **Cure Time:** @77 F, 55% R.H.

To Handle: 5-7 hrs

To Recoat: 2-24 hrs

Can be returned to Chilled water service in 5-7 hours (although 24 hours is recommended if time permits) or when tack free as coating will cure under water.

**Note:** Full cure should be confirmed by a Barcol Hardness test or a MEK rub before exposing coating to chemical service.

#### **Health and Safety:**

Prior to using this product please review the appropriate Material Safety Data Sheet (MSDS).

**DANGER:** Causes eye burns and skin irritation. Vapor harmful. Dried film of this paint may be harmful if eaten or chewed. Do not get in eyes, on skin or on clothing. Wear protective eye equipment when handling. Keep away from heat, sparks, and flame. Avoid breathing vapor or mist. Wash thoroughly after handling. Wear appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable level. Follow respirator manufacturer's directions for use. Keep container closed. Keep out of reach of children.

**FIRST AID:** IN CASE OF EYE CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN. FOR SKIN CONTACT, FLUSH WITH WATER AND WASH WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND LAUNDER BEFORE REUSE. IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION, AND CALL A PHYSICIAN.

**NOTICE:** Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous

system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

#### **FOR INDUSTRIAL USE ONLY**

The information in this data sheet is based on laboratory tests we believe to be accurate, and is intended for guidance only. All recommendations or suggestions relating to the use of this product, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge are reliable. Because the only true reliable test is one that is in actual operation, Curran International will make available at no charge, samples of the material for testing purposes. Curran International has no control over either the quality or the condition of the substrate, or the many factors effecting the use and application of the material. Curran International does therefore not accept any liability arising from loss, injury or damage resulting from such use or the contents of this data sheet. The data contained herein are liable to modification as a result of practical experience and continuous development. This data sheet replaces and annuls all previous issues and it is therefore the user's responsibility to ensure that this data sheet is current prior to using the product.