

General Description

Curran 1500 is an advanced two part (100% solids) epoxy coating designed specifically for high temperature immersion service in water and process streams (up to 365 F, 185 C). This coating is an organic/inorganic hybrid that exhibits state of the art coating technology with exponential improvements in performance verses existing polymer technology. Can withstand multiple cycling and steam out events subjected to process equipment.

- Heat Transfer equipment and components
 - Channels
 - Covers
 - Floating heads
 - Tube-sheets
- Process vessels/ Tanks
- Piping
- Water boxes

Benefits:

- Outstanding immersion protection in water and hydrocarbons.
- Excellent Cold Wall resistance
 - Atlas cell test: 6+ months de-ionized water at 210 F (98 C)
 - Pressurized Atlas Cell Test: 60 days de-ionized water at 365 F (185 C).
- Can be a single coat application
- Can withstand multiples of heat cycling events with no effect.
- Tolerates steam outs to + 400 F (204 C).
- Excellent foul release.
- High abrasion resistance
- Coating surface remains slippery even at high temperatures.
- High Gloss finish
- Zero VOC'S (100% Solids)
- Cures at room temperature

Packaging:

- 1 kg kits
- Additional sizes may be available.

Coating Properties:

Color: Lt Grey/Grey
Volume solids: 100%
Flash Point > 200 F (93 C)

Properties

The following tests were performed on samples after full cure (120 hours @ 70F).

Abrasion Resistance: ASTM D 6040-10
Tabor CS-17 wheel 1000 cycles
46 mg loss

Atlas Cell Exposure (cold wall): ASTM C 868

- 6+ months de-ionized water at 210 F (98 C)
- Pressurized Atlas cell test: 60 days de-ionized water at 365 F (185 C).

Cathodic Disbondment: ASTM G 8-96 (10)
Zero disbondment at 100C for 30 days.

Chemical resistant:

Contact Curran for specific chemicals/temperatures/concentrations.

Recommended for: Steam, hydrocarbons, acids and caustics

Hardness Barcol: (ASTM D 2583)
50

Pull off Adhesion: ASTM D 4541
>3,600 p.s.i.(dolly glue failure).

Temperature resistance:

365 F (185 C) to -58 F (-50 C) continuous immersion. Tested up to 400F (200 C) steam for 30 days.

Contact Curran on particular service conditions.

Theoretical Coverage: (as supplied)

- A 1 kg kit will cover 5 square feet at 40 mils (1mm).
- A 1 kg kit will cover .46 square meters at 40 mils (1mm).

* Allow a wastage factor based on application method



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Curran 1500

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Mix Ratios:

- Mixing Ratio by Weight (Base : Hardener)
100 grams to 3.7 grams

Application:

Below are general guidelines for applying Curran 1500 Contact Curran International for detailed application procedures if needed

Surface preparation:

- SSPC- SP 10 (Near white) is a minimum surface cleanliness
- Surface roughness: 3.0 Mil (75 microns) minimum.
- New surfaces should be degreased prior to grit blasting
- Coating should be applied immediately after surface preparation

Coating Application: Trowel Roll or Stiff Brush

- 1500 coating material that can be applied up to 40 mils (1mm) in a single coat.
- Most common application method is to apply by thin nap mini roller and then brush to smooth.

Recommended Dry Film Thickness

- 32 - 50 Mils final DFT

Environmental:

Apply when substrate temperature is between 60 F and 100 F. Substrate must be 5 F above dew point

Holiday Inspection:

Coating shall be holiday tested at 90VDC wet sponge using spark tester

Repairs:

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

- Wash area with soap and water (amine blush may be present)

- Abrade area by grit blasting or mechanical abrasion, while protecting surrounding areas.
- Apply coating to prepared area feather into surrounding edge.
- Allow to dry and Qc

Working Times:

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

Storage/Shelf Life:

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.

Health and Safety:

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

Cure Time:

	60F/16C	70F/21C	90F/32C
Tack Free	10 hrs	8 hrs	4 hrs
Light load	20 hrs	16 hrs	8 hrs
Full Load	40 hrs	32 hrs	16 hrs
Full Chem	240hrs	180 hrs	24 hrs

Note: Full cure should be confirmed a MEK rub before exposing coating to chemical service.

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 (unless there are written agreements stating



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otherwise). 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.