Product Data Sheet:

Curran 1200 R

General Description

Curran 1200 R is advanced two part (100% solids) epoxy coating designed specifically for high temperature immersion service in water and process streams 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.

- Process vessels/ Tanks
- Piping
- Channels
- Tube sheets
- Waterboxes

Benefits:

- Outstanding immersion protection in water and hydrocarbons.
- Can withstand multiples of heat cycling events with no effect.
- Tolerates steam outs to + 400 F (204 C).
- Excellent foul release.
- Reduction in drag
- Coating surface remains slippery even at high temperatures.
- High Gloss finish
- More thermally stable at higher temperatures than other coatings.
- Zero VOC'S (100% Solids)

Technical data:

Color: Lt White/Gray

Weight (lbs/ gal) 12.8

Volume solids: 100%

Flash Point > 200 F (93 C)

Properties

The following tests were performed on samples after full cure (96 hours @ 70F).

Abrasion Resistance: ASTM D 6040

Tabor CS-17 wheel 1000 cycles

107 mg loss

Atlas Cell Exposure (cold wall): ASTM C 868

Atlas cell exposure at 70C for 30 days. Passed

Cathodic Disbondment: ASTM G 8

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

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Shore D Hardness: (ASTM D 2240)

85

Pull off Adhesion: ASTM D 4541

>3,800 PSI to substrate, superficial cohesive failure at 3,300 PSI

Temperature resistance:

Tested up to 400 F (204 C) in steam.
Contact Curran on particular service conditions.

Theoretical coverage:

Based on 1 mil (25.4 microns)
1 Gallon will cover 1604 ft² (150 m²)

* Allow a wastage factor based on application method

Mix Ratios:

- Mixing Ratio by Weight (Base : Hardener)
  Gray:100 grams to 33.07 grams
  White:100 grams to 33.02 grams
- Mixing Ratio by Volume (Base : Hardener)
  3:1

Application:

Below are general guidelines for applying Curran 1200 R Contact Curran International for detailed application procedures.

Surface preparation:

- SSPC- SP 10 (Near white) is a minimum surface cleanliness
- Surface roughness: 2.0 – 5.0 Mil (50-125 microns) minimum.
- New surfaces should be degreased prior to grit blasting
- Coating should be applied immediately after surface preparation

Coating Application: Spray or Brush/Roll

- Coating must be fully mixed before addition of solvent
- Spray
  - Minimum 68:1 airless spray pump
- Brush/Roll
- Recommended Thickness 25-40 mils, (12 – 20 mils) in per coat

Environmental:

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

Spray Application:

Utilize a minimum 68:1 airless pump with a .019” to .021” tip.

Equipment Cleaning:

Acetone or MEK can be utilized for cleanup. Thinning is not recommended

Holiday Inspection:

Wet sponge testing is recommended with 90 VDC

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not damaged and stored at the above temperature ranges.

Repairs:

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

1) Wash area with soap and water
2) Abrade area by grit blasting or mechanical abrasion, while protecting surrounding areas. Removal of all gloss is required and achieving a 1 – 2 mil profile.
3) Apply coating to prepared area feather into surrounding edge.
4) Allow to dry and Qc

Working Times:

Times will vary depending on temperature. At 70F (21C) the usable life of mixed material is 60 min. Note: higher temperatures and larger volumes will create an exothermic reaction and much shorter working times. Be prepared to apply the coating as quickly as possible by spray, or if hand applied, move to smaller pails after mixing.

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

Health and Safety:

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

Cure Time:

	50F/10C	60F/16C	70F/21C	90F/32C
Tack Free	12 hrs	10 hrs	8 hrs	4 hrs
Light load	24 hrs	20 hrs	16 hrs	8 hrs
Maximum Overcoat	24 hrs	18 hrs	12 hrs	4 hrs
Full Load	60 hrs	40 hrs	32 hrs	16 hrs
Full Chem	240 hrs	154 hrs	96 hrs	64 hrs

- **Applicators note that minimum overcoat window is considered acceptable when the coating has gelled to a state that applying another layer of coating over the underlying coat will not lead to deformations of the underlying coat. This may happen before the coating is in a tack free condition.**

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Note: Full cure should be confirmed by a Barcol Hardness test of 45 minimum or 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 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. 11/29/11

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