



# BLUE RIVER COATINGS

## Product Data Sheet

### CRC100-H

#### PRODUCT DESCRIPTION

BLUE RIVER COATINGS CRC100-H is a two-component inorganic corrosion resistant coating designed for Original Equipment Manufacturers (OEM) to protect metal substrates from corrosion and abrasion. If gouged or damaged, the coating will not experience creepage and is repairable. The product is designed to coat surfaces that require a hard, abrasive, and chemical resistant coating that can withstand temperatures of 1,800°F. CRC100-H offers excellent durability and corrosion protection as well as being a low VOC and EPA compliant coating.

#### ENVIRONMENTAL ISSUES

BLUE RIVER COATINGS CRC100-H is considered non-hazardous by EPA definitions and does not contain lead or chromates. The solid and semi-solid sludge produced in spraying and clean up can be dried and sent to a "Class B" landfill. Please follow local and state regulations in the proper use and disposal of this product.

#### CHARACTERISTICS

- ◆ Excellent hardness
- ◆ Excellent adhesion to oxidized metal
- ◆ Excellent heat tolerance (1800°F+)
- ◆ Excellent acid resistance
- ◆ Good impact resistance and flexibility
- ◆ Available in flat finish only
- ◆ Non-photochemically reactive
- ◆ Application by spraying or dipping
- ◆ Solvent is used for clean-up
- ◆ Air dry
- ◆ Product life of 48 hours

#### USES

- ◆ Steel
- ◆ Aluminum

#### AIR QUALITY DATA

- ◆ Free of lead and chromates
- ◆ VOC (Volatile Organic Compounds) 2.06 lb/gal; 246 gm/ltr when catalyzed

#### PHYSICAL DATA

- ◆ Liquid, white color
- ◆ Specific Gravity: >1
- ◆ Evaporation Rate: Slower than ether
- ◆ VOC: 2.06 lb/gal; 246 gm/ltr
- ◆ % Solid by weight: 48%
- ◆ % Solid by volume: 47.5%
- ◆ Weight per gallon: 10.1 lbs
- ◆ Flash Point: 47°F CC Part A
- ◆ Flash Point: 150°F CC Part B

#### PERFORMANCE DATA

The tests below were conducted on non-phosphatized steel panels at 1.5-2.0 mil dry film thickness after 14 days cure time at ambient conditions. Each test rated excellent or no failure.

1. Salt Spray: Standard ASTM 117B on clean, non-oxidized steel panel-pass 2,000 hours with no blistering, creepage, cracking, peeling, or delamination.
2. Salt Spray: Oxidized test panel, pass 1,000 hours with no blistering, creepage, cracking, peeling or delamination.
3. Solvent Resistance: 20 double rubs with lacquer thinner, acetone, MEK, and xylene with saturated cloth
4. Pencil hardness test up to 4H
5. Flexibility: 1/8" conical mandrel
6. Impact Resistance: Forward-160 inch pound, Reverse-160 inch pounds
7. Submersion Test: 5+ years submerged in liquid fertilizer (nitrogen) with no blistering, cracking, peeling or delamination.
8. Submersion Test: 30 minutes in Hydrochloric Acid (10%) with no blistering cracking peeling or delamination.
9. Submersion Test: 30 minutes in Sulfuric Acid (10%) with no blistering, cracking, peeling or delamination.
10. Theoretical Coverage at 1 mil: 762 ft<sup>2</sup> (1604 x 47.5% solids by volume)
11. Dry Time (Air Dry): Dust free – 4 hours @ 50% humidity and 75°F
12. Dry Time (Air Dry): Dry to handle – 12 hours @ 50% humidity and 75°F

## **SPECIFICATIONS**

**METALS:** Surface must be free of grease, oil, dirt, and other foreign matter. Scale rust must be removed.

## **APPLICATION**

Application is by spraying or dipping. Amount of coverage per gallon is dependent upon the applicator and the equipment used. Regular air-drying is acceptable but the product can be forced cured with warm fast moving air. Insure that proper protective clothing and equipment is used during application. Wear NIOSH approved respirator and solvent resistance gloves.

**Mixing Instructions for Spraying** – To obtain the optimum performance, the mixing instructions for CRC100-H must be followed precisely. Each component has been precisely formulated for optimum flow and hardness characteristics.

1. In a container, measure one (1) part by **volume** of Part A to one (1) part by **volume** of Part B. Do not use paper containers. The mixture will be thick and creamy.
2. Under constant agitation, mix the combined parts no less than sixty (60) minutes.

## **Spraying CRC100-H**

1. For best results, the fluid nozzle on the spray equipment should a medium tip. The viscosity of the catalyzed product does not need to be tested. Once the product is thoroughly mixed, the product will be ready to spray.
2. Spray a single wet coat of 2-4 mils (wet) or until desired coverage is achieved. Coating should be applied at approximately 2-4 wet mils (not to exceed 6-8 mils) for optimum performance.
3. Parts can be handled in 12 hours when air-drying. **Caution: Full cure may not occur for 5 days.**  
**Note: Most catalyzed systems require 10-15 days before a qualified ASTM test can be performed.**

*Mixing Instructions for Dipping – To obtain the optimum performance, the mixing instructions for CRC100-H must be followed precisely. Each component has been precisely formulated for optimum flow and hardness characteristics.*

1. In a container, measure four (4) parts by **volume** of Part A to one (1) part by **volume** of Part B. Do not use paper containers. The mixture will be thick and creamy.
2. Under constant agitation, mix the combined parts no less than ninety (90) minutes.

### **Dipping CRC100-H**

1. Submerge clean part into the product mixture and let the excess material drip off.
2. Parts can be handled in 12 hours when air-drying. **Caution: Full cure may not occur for 5 days.**  
**Note: Most catalyzed systems require 10-15 days before a qualified ASTM test can be performed.**

### **CLEAN-UP**

Use solvent for cleanup such as acetone or MEK. Insure that proper protective clothing and equipment is used during application and cleanup.