



Technical Data

NANOPHYLL Inc. – E-CorroSave PENETRANT/SEALER

Product Description

E-CorroSave penetrant/sealer is high Ratio Co-Polymerized Calcium Sulfonate Penetrant/Sealer is 100% solids, zero VOC, high performance environmentally friendly proprietary penetrant sealer formulated specifically to remain active and is a type of co-polymerize reacted synthetic resin with a unique patented crystalline modification that cures by air oxidation. E-CorroSave penetrant/sealer coatings are formed by reacting a specific acid, using a proprietary process and a base made of a specific synthetic (grown artificially as opposed to natural crystalline base material) with polymers, to form an active chemistry for the control of corrosion, crevice corrosion and pack rust. Its unique properties allow it to neutralize acid, displace moisture, scavenge oxygen, thoroughly wet surfaces, and stop crevice corrosion, pack rusting, and corrosion frozen bearings on steel structures. The unique chemistry addresses the physical and chemical components of the crevice corrosion and pack rust.

Uses

For application to pack rusted joints, crevices, back-to-back angles, corrosion frozen bearings or tubing on steel structures such as bridges, towers, cranes, conveyor systems, cable suspension systems and vehicle frames where gaps exist, coating is impossible.

Advantages

Soaks into the crevice corroded or pack rusted joints or connection and into corrosion frozen bearings by polar attraction and chemically stops the corrosion by neutralizing the acid, displacing the moisture, and scavenging out the oxygen.

Chemistry

E-CorroSave penetrant/sealer (Minimum 15% active sulfonate, must maintain a 9-11 to 1 ± 2% ratio Total Base Number to Active Sulfonate) i.e. total base number of 135 to 165 to 15% Active Sulfonate as determined by Titration Testing.

System Solvent

E-CorroSave Solvent/Thinner

Color

Amber solution

Gloss at 60°

Low Gloss ASTM D523 (ISO 2813)

Viscosity

30-40 seconds #4 Ford Cup ASTM D1200

Solids by Weight

100% ASTM D2369

Solids by Volume

100% ASTM D2697 (ISO 3233)

Relative Density

~ 1000 ASTM D4052

Volatile Organic Compounds (VOC)

Zero ASTM D6803

Sag Resistance

NA ASTM D4400

Dry Film Thickness (DFT)

Variable (ISO 19840 or ISO 2808)

Spread Rate

39.4 sq. m. per liter @ 25 microns DFT

1604 sq. ft. per U.S. Gal. @ 1 mil DFT

Dry Time ASTM D1640

When used as a penetrant only, allow 24 hours for maximum penetration. E-CorroSave penetrant/sealer may be top coated wet on wet when an extra 10 mils DFT of E-CorroSave Primer/Topcoat is applied to the pack rusted joints, crevices, corrosion frozen bearings or back-to-back angles during the cutting in process.

Shelf Life

12 months in original unopened container when stored in a protected area where the temperature is between 5°C and 30°C (41°F-86°F). After 12 months material should be mixed and inspected before use.

Surface Preparation

Spot repairs of failed crevice corroded, and pack rusted joints and connections

Remove excessive dirt and contaminants. Open joints with a sharp object, blow dry to allow the E-CorroSave penetrant/sealer to penetrate thoroughly.

SSPC SP WJ4 High Pressure Water Cleaning (HPWC) Joints:

Crevice Corroded Joints should be blown dry with clean, dry 100 PSI high-pressure air to ensure water has been removed. When used without the E-CorroSave primer/topcoat, two applications of E-CorroSave penetrant/sealer are recommended for maximum performance. In this case allow at least 12 hours between applications.

Application

Thoroughly wet out all joints, crevices, cables, corrosion frozen bearings, back-to-back angles,

tube interiors and areas to be protected with E-CorroSave penetrant/sealer by pressure spray or brush.

Excessive E-CorroSave penetrant/sealer allowed to remain on other surfaces will inhibit the dry of the E-CorroSave primer/topcoat and should be brushed out.

Application Equipment

Air less Spray, Conventional Spray Gun, Pressure Rust Proofing Gun, Hudson Chemical Sprayer, Small Pump Sprayer, Brush if spray not available Compatible systems E-CorroSave primer/topcoat (Remove excess E-CorroSave penetrant/sealer before applying Self Priming Topcoat)

Thinning

Spray: No thinning required

Clean Up

E-CorroSave Solvent/Thinner

Weight per Gallon

8.60lbs ± .25 ASTM D1475

Safety Precautions & Regulatory Data

Flashpoint 120°C (248°F). Keep away from heat, open flame, and sparks. Avoid contact with skin and eyes. Avoid prolonged breathing of vapor. Read label instructions carefully and refer to Material Safety Data Sheet supplied. This product is for industrial use only and is not intended for use in or around a household or dwelling.

Notes

The technical data given herein has been compiled for your help and guidance and is based upon our experience and knowledge. It is subject to modification from time to time in the light of experience and our policy of continuous product development. Persons using this product must first satisfy themselves as to its suitability for the intended purpose. Please contact your representative for complete recommendations. A complete E-CorroSave penetrant/sealer application specification is available uponrequest.

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