

EONCOAT®

Product Data Sheet

v.5.0.0 OCT 2016

Product Description

EonCoat® is a 100% solids, water based, non-toxic, zero-VOC (Volatile Organic Compounds), zero HAPs (Hazardous Air Pollutants), non-flammable, odorless, inorganic primer for use in preventing corrosion on carbon steel. It contains a proprietary molecular bonding technology that creates an impenetrable covalent bond with the steel substrate. The patented EonCoat forms two layers of protection just seconds after it is applied through a plural component sprayer. The inner layer forms the permanent molecular bond with the ferrous ions in the steel; the protective outer layer is a flexible ceramic that provides excellent protection and bonds extremely well with any topcoat. EonCoat is fundamentally different than other commercially available protective coatings and therefore this Product Data Sheet, along with the EonCoat Application Guide, should be read closely.

Product Features

EonCoat contains no hazardous chemicals and is easy to apply as a 1:1 mix through a plural component sprayer. There is no wasted material, no risk of overspray beyond four feet, and no dew point restrictions. EonCoat is dry to recoat in minutes or return to service in 1 hour. It will not turn yellow over time as it contains no carbon and it is suitable for continuous exposure to chemicals ranging in pH from 1 – 11 (depending upon selection of top coat). Because of its covalent bonding technology, EonCoat will never present “edge creep”, and exhibits a self-healing capability should the coating surface ever be damaged.

Topcoat should be selected based on service environment. Generally, epoxy has been used for acid resistance and polysiloxane and acrylic have

Product Characteristics

| | | | |
|----------------------|--------|------------------|-------------|
| Color: | White | Sheen: | Flat |
| Mixing Ratio: | 1:1 | Clean Up: | Water |
| Volume Solid: | 95±5 % | Thinning: | Do Not Thin |

Product Coverage

Theoretical Coverage: @ 1 mil Dry Film Thickness (DFT): 1600 ft²/gallon. @ 20 mil DFT: 80 ft²/gallon
20 mil minimum DFT (no max)
Note: Brush or roll application is not possible due to short pot life when part A and B are mixed.

Application Conditions/Dry Time

| | |
|----------------------------|---|
| Temperature of substrate: | 40-120F |
| Humidity: | 30-95% Call EonCoat for instruction outside of this range |
| Dry Time @ 20 mil coating: | 5-10 min to touch 15-25 min to handle ~1 hour return to service |
| Full Cure: | 24 hours (Note: full cure is temperature, humidity and thickness dependent) |

been used for atmospheric conditions. EonCoat can supply these as a complete solution or can help the customer chose the right topcoat for their application.

Typical Application

EonCoat can be applied to any properly prepared steel structure including: coastal tanks, pipelines, pipes, water treatment facilities, refineries, waste water treatment facilities, marine facilities, offshore platforms, transportation equipment, OEM, power generation facilities, hospital equipment and facilities. For further information please contact EonCoat representative.

Storage Conditions & Safety Precaution

Store in 45-110F in warehouse. Avoid direct sunlight for prolonged period of time.

Shelf Life: Part A: 1 year
Part B: 1 year

Safety Precaution: Refer to the MSDS of each component (Part A and Part B) that can be found on the following page of the EonCoat website:

<http://eoncoat.com/product-sheets/>

For additional information contact:

**EonCoat, LLC
551 Pylon Drive
Unit # D
Raleigh, NC 27606
Phone: 754.222.4919
www.eoncoat.com**

Physical Properties

| Test | Method | Results |
|---|--|---|
| Abrasion Resistance | ASTM D 4060 CS-17 Wheels with 1 kg weight on each arm | 2000 Wear Cycle per Mil 130 mg mass loss |
| Adhesion (Pull off strength) For Ceramic layer | ASTM D 4541 | 550 PSI |
| Flexibility | ASTM D 522 | 19% |
| Pencil Hardness | ASTM D 3363 | 9H |
| Impact Resistance | ASTM D 2794 | 140-160 Inch-Pound |
| Water Vapor Transmission | ASTM E96 | 2.5 Perm-Inch |
| Thermal Conductivity | | 0.239 W/ m K @25C |

| | | |
|-----------------------------------|------------|---|
| Flame Spread and smoke generation | UL 723 | Zero Flame spread and Zero smoke generation |
| Fire Resistance | EN 13823 | B-s1, d0 Classified as B or better |
| Chemical Resistance | ASTM D1308 | No effect with most organic solvent. Not recommended for long term exposure to acids. |
| Resistance to Growth of Mold | ASTM D3273 | Rating -10 = Passed |

Surface Preparation

Surface must be clean and free of standing water and loose debris, particles, or poorly adhered paint, mill scale and other remaining finishes. Before blast remove all oil, grease and dust to insure proper adhesion.

| Type of Surface | Condition of surface | Standard |
|------------------------|---|------------------|
| White metal blast | New/mill scale | SSPC-SP5/ NACE 1 |
| Near white metal blast | New/ unused w/ rust over the mill scale | SSPC-SP10/NACE2 |
| Commercial blast | In service/ previously coated | SSPC-SP6/ NACE3 |
| Brush-off blast | Uniform layer of rust | SSPC-SP7/NACE 4 |

Generally, NACE 3 is recommended surface prep, but for further information please contact EonCoat.

*Warranty: EonCoat, LLC, warrants that if applied by an EonCoat certified contractor the coating fails within **30 years** of documented application, EonCoat, LLC, will replace the coating at their cost. No other warranty or guarantee of any kind, implied or expressed is made by EonCoat, LLC. Please see the written EonCoat, LLC limited warranty available at www.eoncoat.com for details.*

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