

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 ductile 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: 70 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
Ductility	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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