Technical Data Sheet v.4.- Last Updated Jul-2023

Product Code:

EonCoat – Weldable Tank Bottom Coating (WTBC) – Part A
EonCoat – Weldable Tank Bottom Coating (WTBC) – Part B

General Description: Two component, inorganic, coating. Forms a continuous coat of ceramic coating that provides excellent anti-corrosion properties for carbon steel.

Product Features:

- Superior anti-corrosive tank bottom coating for protection of steel
- Fast drying and rapid return to service
- Inorganic water based, no VOC, no HAPs, no odor and zero flame spread

Technical Data:

Color: White | Sheen: Flat | Mixing Ratio: 1:1 | Clean up: Water

Volume Solid: 95±5% | Thinner: Do Not Thin | Theoretical Coverage: ~1 m^2/litre @ 1000 micron

Shelf Life: 1 year | Pot Life: N/A | Flash Point: N/A

Storage: Do not store EonCoat in direct sunlight for a prolonged period of time. Minimum storage temperature is 45^{0}F (8^{0}C) and maximum 110^{0}F (44^{0}C). When opened, containers can be used more than once when lids are tightly sealed after each use. Opened containers should be used within (1) month after opening.

Drying Schedule @ 500 µm(micron) Wet

	@ 10^{0}C	@23-27^{0}C	@38^{0}C
To touch:	~10 min	~6 min	~4 min
To handle:	1 hour	~45 min	~30 min
To recoat:			
Minimum:	10-15 min	8-10 min	5-8 min
Maximum	No recoat window. Coating may need to be clean with water before recoating.		

Drying time is temperature, humidity, and thickness dependent.

Surface Preparation

Surface must be clean, damp to dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion and reaction with steel.

→Refer to product application brochure (pictures and surface requirements) for detailed surface preparation information.

Minimum recommended surface preparation:

For Iron and Steel:

Atmospheric: SSPC – SP 6/ NACE 3 / SSPC-SP WJ-1 L/NACE WJ-1/L (with existing profile). Minimum profile required: 3 mils. Flash rust with damp surface is accepted. Mill scale is not accepted.

Immersion: SSPC – SP 6/ NACE 3 / SSPC-SP WJ-1 L/NACE WJ-1/L (with existing profile). Minimum profile required: 2 mils. Flash rust with damp surface is accepted. Mill scale is not accepted.

For Concrete & Masonry

Atmospheric: SSPC-SP13/ NACE 6

Immersion: SSPC-SP13/ NACE 6

Recommended Uses

For use over properly prepared steel in the following industrial environments:

* Petro-Chemical
* Bridges and Highways
* Fabrication Shops
* Pulp and Paper Mills
* Marine – Structures and Offshore
* Immersion services

Application Conditions

Temperature: Surface: 10^{0}C minimum 49^{0}C maximum
Material: 15^{0}C minimum 35^{0}C maximum
* Misting with water may be required depending on surface temperature and wind conditions. Refer to product application brochure for more information. Also refer to triangle graph enclosed here.

Dew Point: No restriction

Relative Humidity: 20-98%

Ordering information

Packaging: 34 litres

Part A: 17 litres in 20 litre container
Part B: 17 litres in 20 litre container
Weight: 1.7 kg/litre → 29kg bucket weight

Safety Precautions

Refer to the SDS sheet before use.

Published technical data and instructions are subject to change without notice.
Contact your EonCoat representative for additional technical data and instructions.

Surface Preparation Standards

	Condition of Surface	ISO 8501-1 BS7079:A1	SSPC	NACE
White metal		Sa 3	SP 5	1
Near White metal		Sa 2.5	SP 10	2
Commercial Blast		Sa 2	SP 6	3
Brush-Off Blast		Sa 1	SP 7	4
Hand Tool Cleaning	Rusted/Pitted	C St 2/ D St 2	SP 2 / SP 2	-
Power Tool Cleaning	Rusted/Pitted	C St 3/ D St 3	SP 3/ SP 3	-

Application Equipment

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with water. No reduction is necessary. DO NOT REDUCE. Clean up with water.

Clean up:	Water
Airless Spray:	
Pump	30:1
Pressure	4.8-22 MPa
Hose	½ - ¼" diameter
Tip	225-543
Filter	Must be Removed
Reduction	Do Not Reduce. Not Recommended.

Refer to product application brochure for complete detail on pump set up and instructions.

Application Procedures

Surface preparation must be completed as indicated

Mixing Instructions.

Part A WTBC: Part A (Acidic component of acid-base reaction) comes in a gel form. Four blade paddle mixer needs to be used to break gel apart. Once gel has been broken material gains some fluidity, bucket needs to be mixed with bucket (dispersion blade) mixture. Make sure no material remains on the bottom of the bucket. ~3-5 min mixing is needed to ensure proper mixing and no agglomerations.
Part B WTBC: Part B (Basic component of acid-base reaction) needs to be mixed with four blade paddle mixer or conventional mixing blade. Make sure no material remains on the bottom of the bucket. ~1-3 min mixing is needed to ensure proper mixing of product with no agglomerations.

Recommended Spraying Rate

	Minimum	Maximum	
Wet Micron	1125	1125-1500	Coverage: 1 m^2/litre
Dry Micron	1000	1125-1500	

Refer to product application brochure for complete application procedures and instructions to overcome issues.

To prevent sagging follow drying schedule.

Misting with water may be required depending on surface temperature and wind conditions. EonCoat chemically reacts with flash rust and it can be applied over rust. For further detail refer to product application brochure.

Clean Up Instructions

Clean up spray gun and pump with water following instructions written in application brochure. DO NOT USE SOLVENTS.

Disclaimer

The information and recommendations set forth in this technical data sheet are based upon tests conducted by or on behalf of the EonCoat, LLC. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your EonCoat representative to obtain the most recent technical data sheet information and application brochure.

Performance Characteristics

Substrate:	Steel (Unless otherwise noted with test results)
Surface Preparation:	SSPC – SP 6/ NACE 3 / SSPC-SP WJ-1 L/NACE WJ-1/L
System Tested:	EonCoat WTBC

Test Name	Test Method	Results
Abrasion Resistance (Primer only)	ASTM D 4060, CS 17 wheel, 1000 cycles, 1 Kg load	1000 Wear Cycle per Mil (WCM); 280 mg mass loss
Adhesion	ASTM D 4541	350 psi
Corrosion Resistance	ASTM D 5894, 12 cycles, 4000 hours	Rating 10 per ASTM D 610 for Rusting Rating 10 per ASTM D 714 for Blistering
Direct Impact Resistance (Primer Only)	ASTM D 2794	50 in. lbs.
Flexibility (Primer Only)	ASTM D 522	18% Elongation
Immersion Resistance, Salt Water	77^0F, 2000 hours	Rating 10 per ASTM D 610 for Rusting Rating 10 per ASTM D 714 for Blistering
Immersion Resistance, Fresh Water	77^0F, 2000 hours	Rating 10 per ASTM D 610 for Rusting Rating 10 per ASTM D 714 for Blistering
Moisture Condensation Resistance	ASTM D 4585, 100^0F, 2000 hours	Rating 10 per ASTM D 610 for Rusting Rating 10 per ASTM D 714 for Blistering
Pencil Hardness (Primer Only)	ASTM D 3363	6H
Salt Fog Resistance	ASTM B 117, 4000 hours	Rating 10 per ASTM D 610 for Rusting Rating 10 per ASTM D 714 for Blistering
Flame Spread and Smoke Generation (Primer Only)	UL 723	Zero Flame Spread and Zero Smoke Generation
Thermal Conductivity (Primer Only)		0.25 W/Mk @ 25^0C
Water Vapor Transmission (Primer Only)	ASTM E 96	2.5 perm-inch
Resistance to Growth of Mold	ASTM D3273	Rating – 10 = Passed
Fire Resistance	EN 13823	B-s1, d0 Classified as B or Better

Warranty

The EonCoat limited product warranty can be found on the company website at www.eoncoat.com