



CORR-ZE™ 100

APPLICATION PROCEDURES

TABLE OF CONTENTS

- 1.0 PURPOSE 2
- 2.0 SCOPE..... 2
- 3.0 PROPER USE & MIXING 2
 - 3.1. USE 2
 - 3.2. MIXING 2
- 4.0 EQUIPMENT & MATERIALS 2
 - 4.1. VAPOR BLASTING 2
 - 4.2. ULTRA HIGH-PRESSURE WATER JETTING (UHP) 3
 - 4.3. DRY BLASTING WITH HPWC 3
- 5.0 PROCEDURE..... 3
 - 5.1. VAPOR BLASTING 3
 - 5.2. UHP 4
 - 5.3. DRY ABRASIVE BLASTING WITH HPWC..... 4

1.0 PURPOSE

The purpose of this procedure is to identify proper utilization of Corr-Ze™ 100 during application, demonstration, and testing activities. All requirements identified herein shall be strictly adhered to in order to successfully demonstrate proper uses and application procedures. All documentation and product information shall be reviewed prior to initiating any demonstration or use of the product.

2.0 SCOPE

To outline the steps and tasks required to perform a safe and quality demonstration of Corr-Ze™ products. This procedure covers risk management, surface preparation, product application and QA/QC of each step.

3.0 PROPER USE & MIXING

3.1. Use

- 3.1.1. Proper use of this product can only be accomplished by the following methods:
 - 1. In the mix with Vapor Blasting equipment
 - 2. In line with Ultra High Pressure Waterjetting, (UHP)
 - 3. In the water stream with High Pressure Water Cleaning (HPWC = 5,000 to 10,000 psi) in conjunction with Dry Abrasive Blasting
- 3.1.2. If this product is used without access to the above methods, success of the product may vary. High pressure cleaning methods are required to break the chemical bond of the hygroscopic soluble salt contamination on the substrate.

3.2. Mixing

- 3.2.1. Proper mixing ratio of this product is a 1:100 ratio of product and Deionized water.
- 3.2.2. If water source is not DI water, 1:50 should be considered, and then 1:25.

4.0 EQUIPMENT & MATERIALS

4.1. Vapor Blasting

- 4.1.1. Equipment shall be properly sized to achieve a White Metal Blast Cleaned surface in accordance with NACE No. 1 / SSPC SP-5 WAB if demonstrating the product.
- 4.1.2. Vapor blasting equipment, lines, reservoirs, tanks, pumps, nozzles, and hoses shall be free of all prior products and contaminants. No lines or equipment shall be used if previously used with any other additive products, regardless of manufacturer. This includes other Corrosion Innovations products.
- 4.1.3. Blasting media shall be of the mineral type. Use of Copper Slag or Coal Slag blasting abrasives are not recommended in any form. Any residual materials of this type shall be purged from the system prior to use of the Corr-Ze™ 100 product.
 - 1. *NOTE* This is for demonstration purposes. Use of these abrasives are not prohibited, but the end user should be aware that slag abrasives could leech contaminants onto the surface when using our product. Results will vary.
- 4.1.4. Use of Deionized water is strongly recommended to ensure no other chemical reactions occur on the surface. In the case where DI water is not available, the water used in the

system shall be tested with a proper water testing kit and chlorides shall be lower than 15ppm and dilution ratios should be adjusted to 1:50.

4.2. Ultra High-Pressure Water Jetting (UHP)

- 4.2.1. UHP equipment, lines, reservoirs, tanks, pumps, nozzles, and hoses shall be free of all prior products and contaminants. No lines or equipment shall be used if previously used with any other additive products, regardless of manufacturer. This includes other Corrosion Innovations products.
- 4.2.2. Use of Deionized water is strongly recommended to ensure no other chemical reactions occur on the surface. In the case where DI water is not available, the water used in the system shall be tested with a proper water testing kit and chlorides shall be lower than 15ppm and dilution ratios should be adjusted to 1:50.

4.3. Dry Blasting with HPWC

- 4.3.1. Equipment shall be properly sized to achieve a White Metal Blast Cleaned surface in accordance with NACE No. 1 / SSPC SP-5 WAB if demonstrating the product.
- 4.3.2. Blasting equipment hoses shall be free of all prior products and contaminants.
- 4.3.3. Blasting media shall be of the mineral type. Use of Copper Slag or Coal Slag blasting abrasives are not recommended in any form. Any residual materials of this type shall be purged from the system prior to use of the Corr-Ze™ 100 product.
 - 1. *NOTE* This is for demonstration purposes. Use of these abrasives are not prohibited, but the end user should be aware that slag abrasives could leech contaminants onto the surface when using our product. Results will vary.
- 4.3.4. Use of Deionized water is strongly recommended to ensure no other chemical reactions occur on the surface. In the case where DI water is not available, the water used in the system shall be tested with a proper water testing kit and chlorides shall be lower than 15ppm and dilution ratios should be adjusted to 1:50.
- 4.3.5. Power washer used to rinse shall be between 5,000 and 10,000 psi. The use of hot water burners is recommended. The power washing unit shall be completely cleaned of all residual contaminants deposited by other products. The system shall be purged with DI water prior to use of the Corr-Ze™ products.

5.0 PROCEDURE

5.1. Vapor Blasting

- 5.1.1. Set up vapor blast equipment in a manner not to create tripping hazards. Route all hoses out of the walkway to the demonstration piece. If this is not possible flag an outlined area and do not allow anyone inside the area until the equipment is shutdown, depressurized and hoses have been pulled back to safe distance.
- 5.1.2. Ensure vapor blast equipment has been properly cleaned with no residual residue from other products. PRIOR TO ENTERING CUSTOMER PROPERTY.
- 5.1.3. Fill vapor blast unit with Corr-Ze™ 100 product and test the metering of abrasive and product ratios.
- 5.1.4. Set up the blast panel and perform pre-chloride testing.

- 5.1.5. Show clients the pre-test reading.
- 5.1.6. Ensure all personnel have safety glasses and eye protection donned.
- 5.1.7. Ensure operators have safety glasses, face shield, respiratory protection, and gloves donned.
- 5.1.8. Blast the substrate with the hose at a 90-degree angle with 50% overlap of the blast pattern. DO NOT WHIP NOZZLE.
- 5.1.9. Turn the equipment to the rinse cycle and rinse the panel.
- 5.1.10. Allow the panel to dry naturally.
- 5.1.11. Once the panel has dried perform post-chloride testing, show clients the post-test reading.
- 5.1.12. Shutdown and de-pressurize equipment, remove hoses, barricades tape and allow customers to walk in and view the area. DO NOT ALLOW ANYONE IN THE AREA UNTIL THIS IS COMPLETE. ALL PERSONS ENTERING THE AREA MUST HAVE SAFETY GLASSES DONNED TO PREVENT POTENTIAL EYE INJURIES.

5.2. UHP

- 5.2.1. Ensure that the UHP equipment pressure is enough to prepare the surface to a WJ-1. This requires removal of all substances to bare metal.
- 5.2.2. Ensure that 1:100 ratio can be accomplished.
- 5.2.3. The use of DI water is strongly recommended. In instances where this is not possible, clean water can be used if the water is properly tested and Chlorides are less than 15ppm.
- 5.2.4. Prepare the surface and allow it to naturally dry.

5.3. Dry Abrasive Blasting with HPWC

- 5.3.1. Set blast equipment in a manner not to create tripping hazards. Route all hoses out of the walkway to the demonstration piece. If this is not possible flag an outlined area and do not allow anyone inside the area until the equipment is shutdown, depressurized and hoses have been pulled back to safe distance.
- 5.3.2. Ensure blast equipment has been properly cleaned with no residual residue from other products. PRIOR TO CONDUCTING DEMONSTRATION.
- 5.3.3. Fill power washing unit with Corr-Ze™ 100 product and test the product ratios.
- 5.3.4. Set up the blast panel and perform pre-chloride testing.
- 5.3.5. Ensure all personnel have safety glasses and eye protection donned.
- 5.3.6. Ensure operators have safety glasses, face shield, respiratory protection, and gloves donned.
- 5.3.7. Clean the substrate with the power washer prior to abrasive blasting.
- 5.3.8. Blast the substrate with the hose at a 90-degree angle with 50% overlap of the blast pattern. DO NOT WHIP NOZZLE.

5.3.9. Rinse the panel with the power washer.

5.3.10. Allow the panel to dry naturally.

5.3.11. Once the panel has dried perform post-chloride testing, show clients the post-test reading.

5.3.12. Shutdown and de-pressurize equipment, remove hoses, barricades tape and allow customers to walk in and view the area.