

CORR-ZE[™] 200 APPLICATION PROCEDURES

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TABLE OF CONTENTS

1.0	PURP	OSE	2
2.0	SCOP	E	2
3.0	PROP	ER USE & MIXING	2
3.		Use	
3.	2.	Mixing	2
4.0	EQUI	PMENT & MATERIALS	2
4.	1.	BRUSH APPLICATION	2
4.		ROLL APPLICATION	
4.	3.	SPRAY APPLICATION (AIRLESS OR CONVENTIONAL)	3
5.0	PROC	EDURE	4
5.		INITIAL CLEANING NOTES	
5.	2.	CORR-ZE [™] 200 APPLICATION	4

1.0 PURPOSE

The purpose of this procedure is to identify proper utilization of Corr-Ze[™] 200 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-oriented demonstration of Corr-Ze[™] products. This procedure covers product application, use 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. Application of Corr-Ze[™] 200 by roller
 - 2. Application of Corr-Ze[™] 200 by brush
 - 3. Application of Corr-Ze[™] 200 by spray
- 3.1.2. If this product is used without access to the above methods, success of the product may vary.
- 3.1.3. Brushing and rolling the product will require the user to prepare smaller areas than what would be possible if spray application is used. Film thickness will be difficult to maintain with brush and roll application, and the user should test an area first to check desired results.
- 3.1.4. High pressure cleaning methods are required to remove the Corr-Ze[™] 200 gel from the surface after proper dwell times. This shall be accomplished with a minimum of 3500psi HPWC, (High Pressure Water Cleaning).
- 3.1.5. Corr-Ze[™] 100 shall be used in the stream of the cleaning equipment mixed at 1:100 with DI water to ensure that the Corr-Ze[™] 200 is neutralized during the rinse. If DI water is not available, the water used shall have no more than 15ppm chloride content and dilution ratio should be raised to 1:50 of the Corr-Ze[™] 100 product and water. It is possible to further adjust the mixing ratio to 1:25 if city water with high chlorides must be used, but results will vary.

3.2. Mixing

- 3.2.1. The product should be adequately mixed using a power mixer prior to use. No water is to be added to Corr-Ze[™] 200.
- 3.2.2. The power mixer shall have no traces of oxides present on the mixing blade, otherwise, the oxides may discolor the gel. This is not detrimental to the product but could inhibit desired results.

4.0 EQUIPMENT & MATERIALS

- 4.1. Brush Application
 - 4.1.1. Ensure that brushes are clean and free of any solvents, moisture, or coating materials.

- 4.1.2. Brushes that are of poor quality will exhibit loss of bristles on the surface but is not detrimental to the application.
- 4.1.3. Minimum thicknesses shall be maintained during brush application.
- 4.1.4. Smaller work areas should be considered.
- 4.2. Roll Application
 - 4.2.1. Ensure that rollers naps are clean and free of any solvents, moisture or coating materials
 - 4.2.2. Ensure that roller frames do not have any signs of oxidation as this will discolor the product during submersion of the roller into the gel. Again, this is not detrimental to the product, but may cause varying results.
 - 4.2.3. Rollers that are of poor quality will exhibit loss of fiber on the surface but is not detrimental to the application.
 - 4.2.4. Minimum thicknesses shall be maintained during roller application.
 - 4.2.5. Smaller work areas should be considered.
- 4.3. Spray Application (airless or conventional)
 - 4.3.1. The spray equipment used shall be free of all solvents, coatings, residual contaminates, moisture and oxides.
 - 1. It is recommended that all fluid lines are flushed and cleaned with compressed air to ensure all residual solvents are evacuated from the lines.
 - 2. Best practice is to use new fluid lines or designate fluid lines for Corr-Ze[™] 200 applications only.
 - 4.3.2. Airless pump should be a minimum of 36:1 ratio.
 - 4.3.3. Spray tips should be a minimum orifice size of .021"
 - 4.3.4. Conventional pot pressure will vary depending on the tip and needle setup. Typically, 15
 20 psi of pot pressure will suffice. Adjust as needed.
 - 4.3.5. When spraying the product, minimum film thicknesses shall be maintained.
- 4.4. Film Thickness
 - 4.4.1. Film thickness of the applied product will influence end results. Film thickness shall be maintained at a minimum of 10 to 12 mils WFT with spray, brush, and roller application.
- 4.5. Rinse Equipment
 - 4.5.1. Power washer used to rinse shall be a minimum of 3500 psi. The use of hot water burners is recommended, but not required.
 - 4.5.2. The power washing unit shall be completely cleaned of all residual contaminates deposited by other products.

- 4.5.3. The system shall be purged with DI water prior to use of the Corr-Ze[™] products. A rotary tip is recommended for the washer, but not required. Fan tips work well and do not leave swirls.
- 4.5.4. The water used to rinse shall contain minimum chlorides and other soluble contaminates. DI water is preferred, but not required; however, results will vary.
- 4.5.5. Corr-Ze[™] 100 shall be mixed into the rinse water at a minimum of 100 gallons of potable water to 1 gallon of Corr-Ze[™] 100 unless chloride levels are present. Ratio should be increased to 1:50, or 1:25, depending on contaminate levels.

5.0 PROCEDURE

- 5.1. Initial Cleaning Notes
 - 5.1.1. Corr-Ze[™] 200 is intended to be used to remove all flash rusting and deposition of soluble contaminates that could occur on a prepared surface. This product will only reveal the previous degree of cleanliness. If the presence of residual coatings, mill scale, oxides, heavy corrosion products remain such at hematite and iron ferrite after preparation, Corr-Ze[™] 200 will not remove these items because it cannot get below the barrier that these corrosion products create.
 - 5.1.2. If tightly adherent materials are required to be removed, this needs to be achieved during the blasting phase.
- 5.2. Corr-Ze[™] 200 Application
 - 5.2.1. Ensure that the surface is free of frost, moisture, dew, dust, dirt, or any other visible contaminates.
 - 5.2.2. Apply Corr-Ze[™] 200 to the flash rusted surface at approximately 10 to 12 mils WFT.
 - 5.2.3. Allow the product to dwell for a minimum of 20 minutes. If the surface is over 90°F, ensure that the product stays "wet". If it starts to film over and wax slightly, end results may vary. If the product begins to look waxy, simply re-apply a layer of fresh Corr-Ze[™] 200.
 - 5.2.4. Ensure that the user maintains a "workable area" so that rinsing is controlled. If working on large surfaces, the runoff and drainage SHALL be maintained and rinsed properly. It is not recommended to work on more than ~1,500 square feet at a time without rinsing thoroughly. This includes drainage areas if they are to be coated.
 - **NOTE** The product will still wash away if it is allowed to "wax over" on the surface. This is not detrimental to the system but may require an additional treatment if slight streaks or dark spots appear on the surface after rinsing.
 - 5.2.5. Ensure that the wash equipment is setup and ready for rinse as stated in Section 4.4 above and thoroughly rinse the affected area.
 - 5.2.6. This includes ANY areas where splash of the Corr-Ze[™] 200 occurs. Any area where the gel contacts the steel surface shall be rinsed thoroughly so that no material remains on the surface. This includes runoff and drainage areas.
 - 5.2.7. After rinse, the area can naturally dry. If needed, clean, dry, compressed air can be used to force dry. After area is clean and dry, no Corr-Ze[™] products will remain on the surface and the specified coating system can be applied as recommended by the manufacturer.