

Corr-Ze™ 200: Process Overview

Corr-Ze™ 200 is a revolutionary two step surface decontamination process, comprised of two products (**Corr-Ze™ 200** & **Corr-Ze™ 100**) that clean at the microscopic level to remove surface contaminants including, but not limited to:

- ▶ Water-Soluble Contaminants
 - ▶ Chlorides
 - ▶ Sulfates
 - ▶ Nitrates
- ▶ Non Water-Soluble Contaminants
 - ▶ Sulfides
 - ▶ Flash rust
 - ▶ Blast media

Corr-Ze™ 200: Intended Uses

Corr-Ze™ 200 process can be used after surface preparation and prior to protective coating applications. The process is for use wherever a protective coating will be applied to a metal substrate and extended coating surface life is desired.

Coatings applied over the **Corr-Ze™ 200** cleaned process can significantly outperform coatings applied over substrates prepared by conventional surface preparation standards.

Corr-Ze™ 200 is “coating-neutral.” It is not a film-former and does not leave any residue on the substrate. It can be used with any coating system and can be used before and after welding. **Corr-Ze™ 200** improves weld strength by removing contaminants that negatively affect puddling and weld porosity, and can clean weld flame residue and other surface contaminations after welds have cooled.

Corr-Ze™ 200: Physical Data

Corr-Ze™ 200 is supplied as a powder in 5 each, clear plastic bags and packaged in one each plastic 5-gallon pail. Each bag makes 5 gallons of ready-to-use gel, therefore a 5-gallon pail full of **Corr-Ze™ 200** powder makes 25 gallons total.

Color: White powder when dry, clear gel when diluted with deionized water.

It may appear white in color due to entrained air being inducted into the product during the mixing process.

Typical WFT: 12 to 16 mils wet film thickness

Theoretical WFT: 100 sq. ft. / US gallon at 16 mils WFT. Allow for normal loss factors during mixing, handling and application when estimating practical coverage.

Corr-Ze™ 200: Substrate Preparation:

All surfaces to be treated with **Corr-Ze™ 200** should be clean, dry and free from interference materials. **Corr-Ze™ 200** will work over any surface profile although higher profiles will require more product per square foot.

This product should be mixed and applied in accordance with the manufacturer's recommendation.

Prior to applying Corr-Ze 200 to substrates:

1. Oil, grease and other contaminants must be removed from the substrate surface in accordance with SSPC-SP1 solvent cleaning standards.
2. Substrates to be treated with **Corr-Ze™ 200** should be prepared by means of mechanical abrasion cleaning, abrasive blasting, vapor abrasive blasting or ultra-high-pressure-water blasting to remove all visible interference materials. The minimum requirement for abrasive blasted surfaces is SSPC-SP6, NACE 3, or a Sa 2.5. The cleanliness standards for any project are to be determined by the owner

Note: **Corr-Ze™ 200** may be applied before or after flash rusting of the steel following the blasting process.

Contact Corrosion Innovations for further information.

Corr-Ze™ 200: Application Process**Mixing:**

Always ensure that the mixing blade is clean prior to and after usage.

Add 2.5 gallons of deionized water to a clean 5-gallon pail. While stirring with a power mixer, slowly add half of one bag **Corr-Ze™ 200** powder. Power mix until thickening of the liquid begins, then add the remaining 2.0 gallons of deionized water. Hold the power mixer at a slant to avoid liquid coming out of the bucket, slowly add the remaining **Corr-Ze™ 200**, then mix until proper thickness has been achieved.

Proper mixing of the gel can be determined by pulling the mixer out of the solution; when the gel sticks to the mixer blade, it is ready to be used. After mixing, clean the mixing shaft and blade with clean water, or rinse with **Corr-Ze™ 100** solution that is set up for rinsing the substrate.

Mix Ratio:

Each 5.3 lb. bag of **Corr-Ze™ 200** makes five gallons of the gel with deionized water.

Equipment:

Corr-Ze™ 200 may be applied by airless or conventional spray, using clean equipment suitable for mild acid product. If spray equipment, hoses and gun have been used previously for applying paint, flush with strong solvent, then with potable water and lastly with a single rinse of deionized water. When possible, use new or dedicated fluid hose. *(continued on next page)*

Corr-Ze™ 200: Application Process (continued)

Equipment (continued):

For airless spray, use the minimum pressure required to produce a working fan; tip sizes may range from .021 to .031, depending on size and complexity of surfaces to be coated. Fan sizes are dependent upon the contractor and the project.

For conventional spray, use a plastic pot liner whenever possible. Use a gun, needle and tip combination suitable for spraying this gel. Use a sufficient pot pressure and atomization pressure to produce a uniform fan.

Corr-Ze™ 200: Application

Corr-Ze™ 200 should be applied and rinsed from top to bottom.

The preferred method to apply the gel is by airless or conventional spray.

The gel may be applied by brush or medium nap paint roller, however, care must be taken to ensure that the required minimum wet film thickness is consistently achieved.

If the gel has dried on the surface, and does not rinse off, it is possible to quickly put more gel on the area, let sit for ten minutes and rinse off with the **Corr-Ze™ 100**.

For typical applications, apply 12 to 16 mils of **Corr-Ze™ 200** gel. Use a wet film thickness gauge to check proper application. Do not apply to excessive thicknesses due to possibility of sagging.

Brush or roller application may be used for small areas or where spray application is not allowed. Use rollers and brushes suitable for waterborne paint application. Be careful to maintain the recommended wet film thickness.

Please consult your Corrosion Innovation representative for immersion process questions.

Corr-Ze™ 200 may be applied after flash rusting occurs caused by wet abrasive blasting.

This method allows the applicator to blast a complete area without the need to paint out on the same day.

Please consult with Corrosion Innovation for additional information.

Corr-Ze™ 200: Dwell Time

“Dwell Time” is the length of time required after application for **Corr-Ze™ 200** to clean and passivate the surface. Minimum Dwell Time at 70° F. (21° C.) is approximately 1/2 hour

Additional dwell time may be required and is recommended for badly contaminated surfaces, or for very deep anchor profiles.

Corr-Ze™ 200 should not be allowed to completely dry on surfaces. Application to hot substrates may dry in less than 1/2 hour. Use extra precaution to prevent this from occurring.

Please consult with Corrosion Innovation for additional information.

Corr-Ze™ 200: Dwell Time (continued)

Washing: To complete the process, **Corr-Ze™ 200** must be pressure washed off prepared surfaces, using properly mixed **Corr-Ze™ 100**. Optimal rinsing pressure should be 5000-6000 psi with nozzle 4 inches from the surface. Turbo nozzles that clean the substrate evenly, without leaving circular marks, work excellent.

Do not wash surfaces prepared with **Corr-Ze™ 200** with tap water.

Only use **Corr-Ze™ 100** solution preferably prepared with deionized water.

Do not coat surfaces prepared with **Corr-Ze™ 200** which have not been properly washed with the **Corr-Ze™ 100** solution.

Post Treatment: Protective coatings should be applied once the surface is visibly dry.

Corr-Ze™ 200: Working Pot Life

8 hours at 85° F. or as long as **Corr-Ze™ 200** material remains gelled

Mix only as much **Corr-Ze™ 200** as required for one day's project application.

Contact Corrosion Innovations technical support for further assistance.

Corr-Ze™ 200: Clean Up

Thoroughly flush all equipment with clean water and store according to the equipment manufacturer's recommendation.

Dispose of cleanup waste in accordance with all local ordinances.