

Rust-Oleum® Industrial Brands Specification

Coating Specification for Rust-Oleum Virtual Solutions Coating Solution 43 A solvent based coating system

High Performance W9200 System Potable Water Coating
For Steel Substrates in Potable Water Immersion Service

Specification Prepared by: Rust-Oleum Technical Service, March 2011

This is a general coating specification. Changes to this specification may void any product warranties. Contact your Rust-Oleum representative or Rust-Oleum Technical Service if modifications are required to better meet your needs.



PART I GENERAL

1.01 SCOPE OF WORK

- A.** Provide all materials and labor necessary to install Rust-Oleum® W9200 System Potable Water Coating, in strict accordance with project drawings, specifications and current Rust-Oleum application instructions.

1.02 RELATED WORK BY OTHER (SELECT AS NEEDED)

- A.** Division 3 Concrete
- B.** Division 4 Masonry
- C.** Division 5 Metals
- D.** Division 6 Wood
- E.** Division 7 Thermal & Moisture Protection
- F.** Division 10 Specialties
- G.** Division 11 Special Construction

1.03 SYSTEM DESCRIPTION

- A.** The W9200 System Potable Water Coating is a two component, epoxy coating supplied by Rust-Oleum Corporation, located at 11 Hawthorn Parkway, Vernon Hills, IL 60061 (847) 367-7700. The W9200 System Potable Water Coating is suitable for continuous water immersion and meets ANSI/NSF Std. 61 Control No. 1P07 for potable water storage tanks with a minimum capacity of 6,000 gallons. The W9200 System Potable Water Coating consist of two finish colors, W9223300 Tank Blue and W9293300 Tank White, W9202300 Activator, and W102402 Thinner.

1.04 ENGINEERING AND DESIGN REQUIREMENTS

- A.** The Design Architect and Project Engineer shall be responsible for all decisions pertaining to design, detail, structural capability and the like. Rust-Oleum Corporation has prepared guidelines in the form of specifications, technical data and application information to assist in the design and engineering processes.
- B.** Equivalent materials of other manufacturers may be substituted on approval of the engineer or designer. These requests for substitution shall include manufacturer's literature for each product giving the name, generic type, descriptive information, solids by volume, recommended dry film thickness and a list of a minimum of ten (10) projects where the coating system has been applied and performed to expectations for at least three (3) years service. No requests for substitution shall be considered that lower system film thickness, number of coats and/or offer a change in the generic type of coating herein specified. Requests for review of equivalency will be accepted only from the Contractor and will be considered only after the contract has been awarded. Request for review submitted directly to the Engineer by coating suppliers will not be considered.
- C.** Custom colors are available for a nominal charge per color set-up from Rust-Oleum Corporation.
- D.** The W9200 System shall be used only in conformance to the air quality legislation applicable at the location of use.
- E.** The W9200 System, as well as all other epoxies in its class, will gradually yellow with age. This is a cosmetic change and the performance is not altered.
- F.** The W9200 System, as well as all other epoxies in its class, will chalk and/or lose gloss on exposure to Sunlight. This is a cosmetic change and the performance is not altered.

- G. The W9200 System is a direct to metal, self-priming product.

1.05 SURFACE PREPARATION AND APPLICATION DESCRIPTION

- A. Substrate cleaning, surface preparation, coating application and dry film thickness shall be as specified herein and shall meet or exceed Rust-Oleum Corporation's recommendations.
- B. All application equipment shall be clean and maintained in proper working order in accordance with the equipment manufacturer's recommendations.
- C. The W9200 System shall be applied in accordance with the air and surface temperature limits and work areas shall be reasonably free of airborne dust during application and drying time.

1.06 PERFORMANCE REQUIREMENTS

- A. The W9200 System has the following physical properties and these are published on the Rust-Oleum Corporation 9100 System Technical Data Sheet.

	Activated material
Solids by Volume	73-77%
Recommended Dry Film Thickness per Coat (DFT)	5-8 mils
Wet Film To Achieve DFT (Unthinned Material)	6½ -11 mils
Practical Coverage @ Recommended DFT (Assumes 15% material loss)	125-210 sq ft/gal
Induction Period	None required
Pot Life @70-80°F (21-27°C)	2 hours
Dry Times @70-80°F (21-27°C) 50% RH Recoat Immersion	4-30 hours 5 days

1.07 QUALITY ASSURANCE

- A. Applicator Qualifications:
 1. Shall be knowledgeable in the proper installation of W9200 System and experienced in the application of two component, epoxy systems.
 2. Shall provide a minimum of one (1) year workmanship warranty for the application of the W9200 System.
 3. A list of Certified Rust-Oleum Corporation Coating Applicators is available from Rust-Oleum Corporation.
- B. Pre-, Mid-, and Post-Job Conferences shall be scheduled at discretion of the Project Engineer and/or Design Architect.

1.08 SUBMITTALS

- A. Product Data: W9200 System, application and related equipment information.

- B. Color Cards: Supply color cards of specified materials showing range of colors.
- C. Applicator: If applicable, provide certified contractor documentation showing proof of familiarity with the W9200 System.

1.09 DELIVERY STORAGE AND HANDLING

- A. Deliver the W9200 System on-site in Rust-Oleum Corporation's labeled, original, unopened containers.
- B. Store materials inside or under cover at ambient temperature. Keep materials dry, protected from weather, direct sunlight, surface contamination, aging corrosion, extreme temperatures and other damage.

1.10 PROJECT CONDITIONS

- A. Protect adjacent work from damage and overspray during application of the W9200 System.
- B. When coating the interior of tanks, similar vessels, or in confined spaces, ventilation shall be exhausted from the lowest portions of the vessel with top openings kept free and clear. During application the capacity of the ventilating fans shall be at least 300 cfm per gallon of coating applied per hour. Continuous forced ventilation is to be maintained for 48 hours after the completion of coating application at a rate of at least one complete air change every four hours. For the next 3 days ventilation is to be maintained by keeping all openings and manways open.

1.11 WARRANTY

- A. The technical data and suggestions for use contained herein are correct to the best of our knowledge, and offered in good faith. The statements of this specification do not constitute a warranty, expressed, or implied, as to the performance of these products. As conditions and use of our materials are beyond our control, we can guarantee these products only to conform to our standards of quality, and our liability, if any, will be limited to replacement of defective materials. All technical information is subject to change without notice.
- B. Special project warranties may be issued on a request basis at the discretion of the Rust-Oleum Corporation Technical and Legal Departments and would not be contained within this specification document.

2. PRODUCTS

2.01 MANUFACTURER

- A. The W9200 System shall be obtained through a Rust-Oleum distributor. To request nearest distribution source contact Rust-Oleum Corporation.

2.02 MATERIALS

- A. The W9200 System is a two component epoxy system that consist of two finish colors, W9223300 Tank Blue and W9293300 Tank White, W9202300 Activator, and W102402 Thinner.

3. EXECUTION

3.01 JOB CONFERENCES

- A.** A pre-job conference shall be at the discretion of the architect, engineer or general contractor. Coating contractor, substrate installer and other trades whose work effects the application of the W9200 System shall meet at the project site to review procedures and time schedule proposed for application of the W9200 System and related work. Additional conferences are at the discretion of the architect, engineer, general contractor and/or owner.

3.02 SURFACE PREPARATION

- A.** All cleaning and surface preparations specified herein are minimums.
- B.** All surfaces to be coated shall be free of cracks, pits, fins, projections, or other imperfections that would interfere with the formation of a uniform, unbroken coating film.
- C.** All sharp edges shall be ground to smooth radius of at least 1/8 inch.
- D.** All oil and grease shall be completely removed with biodegradable degreasers prior to mechanical cleaning begins.
- E.** All welds shall be ground as necessary to remove sharp edges, undercuts, pinholes, and other such irregularities.
- F.** All weld spatter must be removed by grinding, or other appropriate method, prior to abrasive blast cleaning.
- G.** All ferrous metal substrates shall be abrasive blast cleaned to an SSPC-SP-10 Near White Grade (NACE 2). The surface profile shall be uniform and have a profile depth of 1½ - 3 mils. The first application of coating shall be applied on the same day. If more surface area is prepared than can be coated in one day, the uncoated area shall be re-blasted to the satisfaction of the Project Engineer.
- H.** The coating contractor is to examine the substrate to determine if it is in satisfactory condition to receive the W9200 System. Obtain coating contractor's written report listing conditions detrimental to performance of work in this specification. Do not proceed with the application of the W9200 System until unsatisfactory conditions have been corrected.

3.03 MIXING AND THINNING

A. MIXING

1. The W9200 System colored base component shall be thoroughly mixed to uniform color.
2. The W9200 System W9202300 Activator shall be thoroughly mixed to uniform appearance.
3. In a separate container, combine the base and activator components under mechanical agitation. Completely mix for 3-5 minutes. Allow a 30 minute induction time prior to application of the coating.

B. THINNING

1. Thinning shall be done in accordance with applicable local air quality regulations.

2. Thinning, if needed, shall be done only with Rust-Oleum W102 Thinner.

3.04 APPLICATION

A. Weather Conditions

1. Apply when air and surface temperatures are between 60-100° F (15-38°C) and surface temperature is at least 5° F (3°C) above the dew point.
2. The relative humidity should not be greater than 85%.

B. Coating Application.

1. Application by airless spray is the recommended method. Application by brush or roller should be limited to spot coating or touch-up only.
2. Edges, corners, seams, welds, bolts, nuts and patch repair areas shall be given a brushed spot coat of W9200 System.
3. Spot-coated areas shall have cured for 4 hours minimum prior to application of the first full coat of W9200 System.
4. Apply two full coats (alternating colors) within the recommended film thickness range per coat.
5. The W9200 System shall be recoated no sooner than 4 hours and no later than 30 hours.
6. In no instance shall the W9200 System be applied greater than 8 mils dry film thickness per coat.
7. Sags, checks, blisters, skips, teardrops, or rolled edges shall not be accepted and shall be completely removed and recoated.

C. Protection of surfaces

1. The Coating Contractor shall be responsible for protecting all adjacent surfaces from spills, drips, overspray, or any other form of coating damage.
2. The coating contractor and its subcontractors shall be responsible for removing spots or repairing damaged surfaces to the satisfaction of the project engineer, design architect and/or owner.
3. Exposed concrete or masonry surfaces not specified to be coated shall be repaired or rebuilt by the coating contractor at the discretion of the project engineer, design architect and/or owner.

3.05 CLEAN-UP

- A.** Clean-up shall be done to remove all spills, drips, overspray, or other unwanted coating from all surfaces not intended to be coated.
- B.** All used rags, brushes, roller covers, and other application related materials shall be removed from the work site and disposed in a proper manner and in accordance with local waste regulations.
- C.** All equipment, staging, ladders, and other contractor materials brought onto the jobsite by the contractor shall be removed at the conclusion of the job in a timely manner.

END OF SECTION