

Rust-Oleum® Industrial Brands Specification

Coating Specification for Rust-Oleum Virtual Solutions Coating Solution 47

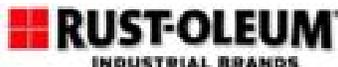
A solvent based coating system

High Performance 9100 System DTM Epoxy Mastic

For Concrete Substrates in Moderate and Severe Industrial
Environments

Specification Prepared by: Rust-Oleum Technical Service, February 2012

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® High Performance 9100 System DTM Epoxy Mastic, 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 9100 System DTM Epoxy Mastic is a two component, epoxy coating manufactured by Rust-Oleum Corporation, located at 11 Hawthorn Parkway, Vernon Hills, IL 60061 (847) 367-7700. The 9100 System DTM Epoxy Mastic is suitable for use on concrete substrates in a moderate or severe industrial environment. The 9100 System DTM Epoxy Mastic is a coating system composed of selected standard finish colors, tint bases, and various condition specific activators.

1.04 ENGINEERING AND DESIGN REQUIREMENTS

- A.** The Design Architect and Project Engineer shall be responsible for all decisions pertaining to design, detail, and structural capability. Rust-Oleum Corporation has written 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, resin type, descriptive information, volume solids, and recommended dry film thickness. 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 is also required. No requests for substitution shall be considered that lower system film thickness, number of coats and/or change the resin type of the specified coating. Equivalent product substitutions will be accepted only from the Contractor and will be considered only after the contract has been awarded.
- C.** Custom colors are available for a nominal charge per color set-up from Rust-Oleum Corporation.
- D.** The 9100 System shall be used only in conformance to the air quality legislation applicable at the location of use.
- E.** The 9100 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 9100 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. This specification does not for water immersion service.

1.05 SURFACE PREPARATION AND APPLICATION DESCRIPTION

- A. Substrate cleaning, surface preparation, coating application and dry film thickness shall be as specified 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 manufacturers' recommendations.
- C. The 9100 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 9100 System has the following physical properties and these are published on the Rust-Oleum Corporation 9100 System Technical Data Sheet.

	Activated Material*
Volume Solids	78-81%
Recommended Dry Film Thickness (DFT)	5-8 mils
Practical Coverage (assumes 15% material loss)	125-225 sq ft/gal
VOC	<340 g/l (<2.8 lbs/gal)
Mixing Ratio	1:1 base to activator by Volume
Induction Period	None required
Pot Life (@70°F & 50%RH)	2-4 hours, less at higher temperatures or with greater than 10 gallons of activated material
Dry Time (@ 70F/21C and 50% RH)	
Tack Free	6-8 hours
Handle	6-12 hours
Recoat	16 hours – 30 days

* Using standard 9101 Activator. Physical properties will vary with the other activators. See the Technical Data Sheet for specific values.

1.07 QUALITY ASSURANCE

A. Applicator Qualifications:

1. Shall be knowledgeable in the proper installation of the 9100 System and experienced in the application of two component epoxy coatings.
2. Shall provide a minimum of one (1) year workmanship warranty for the application of the 9100 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, Design Architect, or General Contractor.

1.08 SUBMITTALS

- A. Product Data: 9100 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 9100 System.

1.09 DELIVERY STORAGE AND HANDLING

- A. Deliver the 9100 System on-site in Rust-Oleum Corporation's labeled, original, unopened containers.
- B. All materials shall be stored inside or under cover at ambient temperature. Keep materials dry, and protected from elemental damage.

1.10 PROJECT CONDITIONS

- A. Protect adjacent work from damage and overspray during application of the 9100 System.

1.11 WARRANTY

- A. The technical data and suggestions of use 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 written 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 9100 System shall be obtained through a Rust-Oleum distributor. To request nearest distribution source contact Rust-Oleum Corporation.

2.02 MATERIALS

- A. The 9100 System is a two component epoxy system that consist of a selection of standard color finishes, tint bases, and activators. Contact Rust-Oleum Corporation for availability of colors and container size.

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 affects the application of the 9100 System shall meet at the project site to review procedures and time schedule proposed for application of the 9100 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 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. The coating contractor is to examine the substrate to determine if it is in satisfactory condition to receive the 9100 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 9100 System until unsatisfactory conditions have been corrected.
- C.** All oil, grease, and chalking shall be completely removed with biodegradable degreasers prior to mechanical cleaning begins. (Rust-Oleum 3599 Cleaner Degreaser)
- D.** All loose and deteriorating concrete must be removed.
- E.** Concrete surfaces being coated must be protected against moisture transmission from entering the uncoated side of the substrate.
- F.** Previously coated surfaces shall be repaired to be relatively free of surface imperfections. A check for loosely held, delaminating coating shall be performed as per ASTM 3359. The gloss shall be dulled by mechanical means to promote proper adhesion of the 9100 System.
- G.** Satisfactory inspection by the Owner, General Contractor, Project Engineer, at any point in the coating process does not relieve the contractor of ownership and responsibility with regard to application long term service life.

3.03 MIXING AND THINNING

A. MIXING

- 1. The 9100 System colored base component shall be thoroughly mixed to uniform color.
- 2. The selected 9100 System 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. Observe any required 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 160 Thinner.

3.04 APPLICATION

A. Weather Conditions

- 1. Apply when air and surface temperatures are between 50-100° F (10-38° C), the relative humidity is no greater than 85%, and surface temperature is at least 5° F (3° C) above the dew point.

2. The 9100 System shall not be applied, except under shelter, during wet, damp, foggy, or windy weather. When necessary, the area to be coated should be sheltered by a temporary enclosure.

B. Coating Application

1. Apply two full coats of 9100 System finish. On bare concrete, thin the first coat 20% with 160 Thinner to increase penetration into the concrete and enhance adhesion.
2. The 9100 System shall be recoated no sooner than 16 hours.
3. 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.

3.05 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 remove at the conclusion of the job in a timely manner.

END OF SECTION