

Rust-Oleum® Industrial Brands Specification

Coating Specification for Rust-Oleum Virtual Solutions Coating Solution 40 A water based coating system

Sierra Performanceⁱ S40 Water Based Epoxy Floor Coating
For Concrete Floors in Mild Industrial Environment

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® Sierra Performance[®] S40 Water Based Epoxy Floor Coating in strict accordance with project drawings, specifications and current Rust-Oleum Corporation 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 Sierra Performance[®] S40 Water Based Epoxy Floor Coating is a VOC-compliant, 2 component, waterbased epoxy coating system manufactured by Rust-Oleum Corporation, located at 11 Hawthorn Parkway, Vernon Hills, IL 60061 (847) 367-7700. The Sierra Performance[®] S40 Water Based Epoxy Floor Coating is intended for use on properly prepared concrete floors in areas of light to medium vehicle traffic and where occasional spillage of mild chemicals may occur.
- B.** The Sierra Performance[®] S40 Water Based Epoxy Floor Coating refers to a coating system composed of selected gloss finish colors, tint bases, a clear, and an activator. The Clear is a satin finish.

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 S40 finish is not suitable for water immersion applications.

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 S40 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 S40 has the following physical properties and these values are published on the Rust-Oleum Corporation Technical Data Sheet.

	Finish colors*	Clear*
Volume Solids	50%	50%
Recommended Dry Film Thickness (DFT)	3½-5 mils	2-3 mils
Practical Coverage (assumes 15% material loss)	135-195 sq ft/gal	225-340 sq ft/gal
VOC	0 g/l (0 lbs/gal)	0 g/l (0 lbs/gal)
Mix Ratio	2:1 Part 1:Part 2 by Volume	2:1 Part 1:Part 2 by Volume
Pot Life @ 70°F and 50% RH	2 hours	2 hours
Dry Time @ 70°F and 50% RH		
Recoat	1-3 hours	1-3 hours
Traffic	24 hours	24 hours

*Activated material

1.07 QUALITY ASSURANCE

- A. Applicator Qualifications:
 1. Shall be knowledgeable in the proper installation of the S40 and experienced in the application of a two component, water based epoxy coating.
 2. Shall provide a minimum of one (1) year workmanship warranty for the application of the S40.
 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: S40, 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 S40.

1.09 DELIVERY STORAGE AND HANDLING

- A. Deliver the S40 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, protected from elemental damage, and protect from freezing.

1.10 PROJECT CONDITIONS

- A. Protect adjacent work from damage, splash, and spillage during application of the S40.

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 S40 shall be obtained through a Rust-Oleum distributor. To request nearest distribution source contact Rust-Oleum Corporation.

2.02 MATERIALS

- A. The S40 consist of a selection of standard color finishes, tint bases, a clear, and an activator. 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 S40 shall meet at the project site to review procedures and time schedule proposed for application of the S40 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 oil and grease shall be completely removed with biodegradable degreasers prior to mechanical cleaning begins.
- D. New concrete shall have cured for a minimum 30 days prior to coating application. If a cure and seal agent was added to the concrete or applied after initial cure, the concrete

must be abrasive blast cleaned or mechanically abraded to remove the sealer and expose fresh concrete.

- E. Bare concrete surfaces shall be acid etched, mechanically abraded, or abrasive blast cleaned to remove all laitance to provide a uniform surface profile with a profile depth of 1 - 1½ mils.
- F. The coating contractor is to examine the substrate to determine if it is in satisfactory condition to receive the S40. Obtain coating contractor's written report listing conditions detrimental to performance of work in this specification. Do not proceed with the application of S40 until unsatisfactory conditions have been corrected.

3.03 MIXING AND THINNING

A. MIXING

The pigmented components shall be thoroughly mixed to uniform color prior to being combined.

B. THINNING

Thinning, when necessary, shall be done with clean, ambient temperature clean, fresh after.

3.04 APPLICATION

A. Weather Conditions

1. Apply when air and surface temperatures are between 50-90° F (4.5-32° C), the relative humidity is no greater than 80%, and surface temperature is at least 5° F (3° C) above the dew point.
2. This coating can tolerate application to damp surfaces; however, conditions must be favorable to allow the moisture to evaporate.

B. Coating Application

1. On bare concrete, thin the first coat 25% with fresh clean water to increase penetration into the concrete and enhance adhesion.
2. Apply using a good quality lint free ¼- inch nap roller.
3. Apply one full coat of S40 finish at the recommended dry film thickness.
4. The S40 shall be recoated no sooner than 1 hour cure.

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