

S.401 – SPECIFICATION: Sealing Conventional Concrete with CSS EMULSION™

Revised: 09.25.11

PART I - GENERAL

Scope

1. PROVIDE all labor, materials and equipment necessary to seal conventional concrete with CSS EMULSION™ manufactured by ELITE CRETE SYSTEMS.

Related Sections

1. ELITE CRETE SYSTEMS Product Binder including:
 - Product Information Sheets
 - Technical Data Sheets
 - Material Safety Data Sheets
 - And all other product and application instructions.

Description

1. CSS EMULSION™ is a clear, high solids acrylic based concrete sealer modified with methyl-methacrylate resins to provide a higher level of stain resistance, abrasion resistance and general wear resistance compared to other similar acrylic based sealers.

Submittals

1. Samples
 - a. The contractor shall make and submit two, 2'x2' sized samples of the proposed finish to the architect, project manager and/or owner for approval.
 - b. Manufacturer's product information and specifications.

Quality Assurance

1. Qualifications
 - a. Product must be CSS EMULSION™.
 - b. The contractor/installer shall be listed with ELITE CRETE SYSTEMS as a trained contractor and shall possess a current ELITE CRETE SYSTEMS trained contractor certificate.
2. Substrates
 - a. CSS EMULSION™ shall be applied over the following horizontal concrete substrates when prepared in accordance with this specification and the ELITE CRETE SYSTEMS Product Information Sheets pertaining to the desired finish.
 - Concrete on Grade
 - Concrete must not have existing sealer or curing agent.
 - b. The contractor/installer shall verify that the proposed substrate has been properly prepared in accordance with the ELITE CRETE SYSTEMS Product Information Sheet pertaining to the desired finish, prior to application of the ELITE CRETE SYSTEMS finish.

Delivery, Storage and Handling

1. All materials shall be delivered to the job site in the original, unopened packages with labels intact. Upon arrival, materials shall be inspected for physical damage or freezing. Questionable materials shall not be used.
2. Minimum storage temperature shall be 40° F. Maximum storage temperature shall be 100° F. All materials shall be stored in a dry location, out of direct sunlight and protected from weather and other damage in accordance with material safety data sheets.

Job Conditions

1. Existing conditions: The contractor/installer shall have access to electric power, clean potable water and a clean work area at the location where the ELITE CRETE SYSTEMS materials are to be applied.
2. Environmental Conditions:
 - a. The ambient air and surface temperature shall be a minimum of 45° F and a maximum of 110° F and shall remain so for at least 24 hours.
3. Protection
 - a. Adjacent areas and materials shall be protected from damage, drops, and spills.
 - b. The ELITE CRETE SYSTEMS materials shall be protected by permanent or temporary means from weather and other damage, prior to, during, and immediately after application. Care must be taken to prevent condensation and/or heat buildup when using a tarp or plastic as protection.
4. Sequencing and Scheduling
 - a. Application shall be coordinated with other construction trades.
 - b. Sufficient labor and equipment shall be employed to ensure a continuous operation.

Maintenance

1. The ELITE CRETE SYSTEMS finish shall occasionally be cleaned and resealed with CSS EMULSION™.

PART II - PRODUCTS

General

1. CSS EMULSION™ shall be supplied by ELITE CRETE SYSTEMS or its Authorized Distributors. Substitutions or additions of other materials must be approved in writing by ELITE CRETE SYSTEMS.

Components

1. CSS EMULSION™.
2. Xylene.

Equipment

1. Mixing shall be done in a clean mixing container with a clean mixing blade by a variable speed drill. Refer to the ELITE CRETE SYSTEMS Product Information Sheet pertaining to the desired finish for a complete list of recommended tools.

PART III EXECUTION

Inspection

1. Examination of Substrate. In accordance with Quality Assurance, Section 2, a thru c.

Substrate Preparation

1. Concrete on Grade and Concrete Decks
 - a. Concrete shall have cured a minimum of 28 days prior to application of the ELITE CRETE SYSTEMS finish.
2. All concrete surfaces must be cleaned to remove all grease, oil, dust, dirt, paint, sealers, efflorescence etc. which may impair the adhesion of the ELITE CRETE SYSTEMS materials. Refer to the ELITE CRETE SYSTEMS Product Information Binder for more information.

Application

1. General
 - a. First coat consists of CSS EMULSION™ reduced at a rate of 2 parts VOC compliant solvent such as DMC or PCBTF to 1 part CSS EMULSION™.
 - b. First coat must be allowed to completely dry before the second coat is applied.
 - c. Second coat should be applied either at the 3 hour point after the application of the first coat but only if the first coat is dry. If the first coat is not dry, wait 12 hours before the application of the second coat.
 - d. Second coat consists of CSS EMULSION™ reduced at a rate of 1.5 parts VOC compliant solvent such as DMC or PCBTF to 1 part CSS EMULSION™.
 - e. Third coat consists of CSS EMULSION™ reduced at a rate of 1 part VOC compliant solvent such as DMC or PCBTF to 1 part CSS EMULSION™.
2. Tools and Equipment
 - a. CSS EMULSION™ is to be mixed is an approved mixing paddle referred to as a "collapsible T mixer" supplied by Hanson Casting and a cordless drill.
 - b. Mixing should be for no less than 2 full minutes.
 - c. A commercial grade pump up type sprayer with a "cone" tip should be used for applying the reduced CSS EMULSION™ solution.
 - d. Application and coverage rate should be 275 to 300 sq. ft. per gallon, per coat.
3. Final Notes
 - a. The finished surface requires a minimum of 24 hours before taking light foot traffic and a minimum of 3 days before taking vehicular or heavy traffic.

Field Quality Control

1. The contractor/installer shall be responsible for the proper application of the ELITE CRETE SYSTEMS materials.
2. ELITE CRETE SYSTEMS, Inc. assumes no responsibility for on-site inspections or workmanship.

Cleaning

1. All excess ELITE CRETE SYSTEMS materials shall be removed from the job site by the contractor/installer upon completion of each project.
2. All surrounding areas, where the ELITE CRETE SYSTEMS finish has been applied, shall be left free of debris and foreign substances resulting from the contractor's work.

Information contained in this specification conforms to standard detail and product recommendations for the installation of the ELITE CRETE SYSTEMS products as of the date of publication of this document and is presented in good faith.

ELITE CRETE SYSTEMS assumes no liability, expressed or implied, as to the architecture, engineering or workmanship of any project.



1061 Transport Drive, Valparaiso, IN 46383
Toll Free 888.323.4445 • P 219.465.7671
F 219.531.0898 • www.elitecrete.com

To insure that you are using the latest, most complete information, contact ELITE CRETE SYSTEMS for product and specification updates.

The ELITE CRETE SYSTEMS Contractor Certificate indicates certain employees of the company have been instructed in the proper application of ELITE CRETE SYSTEMS products and have received copies of ELITE CRETE SYSTEMS Application Instructions and Specifications. The ELITE CRETE SYSTEMS Contractor Program is not an apprenticeship. Each contractor is an independent company and bears responsibility for its own workmanship. ELITE CRETE SYSTEMS assumes no liability for the workmanship of an ELITE CRETE SYSTEMS Contractor.