SECTION 09 97 23

Concrete & Masonry Coatings

Sika Sikagard-440 Clear

NOTES TO SPECIFIERS:

PLEASE UPDATE YOUR MASTER SPECIFICATIONS TO REFLECT THE COMPANY AND PRODUCT NAME CHANGES.

THE PURPOSE OF THIS GUIDE SPECIFICATION IS TO ASSIST THE SPECIFIER IN DEVELOPING A PROJECT SPECIFICATION FOR THE USE OF SIKA PRODUCTS. THIS GUIDE DOCUMENT HAS BEEN PREPARED TO BE PART OF A COMPLETE PROJECT MANUAL. IT IS NOT INTENDED TO BE A “STAND ALONE” DOCUMENT, AND IT IS NOT INTENDED TO BE COPIED DIRECTLY INTO A PROJECT MANUAL.

THIS GUIDE SPECIFICATION WILL NEED TO BE CAREFULLY REVIEWED FOR APPROPRIATENESS FOR THE GIVEN PROJECT AND EDITED ACCORDINGLY TO COMPLY WITH PROJECT-SPECIFIC REQUIREMENTS.

1. PRODUCTS
   * + 1. SUMMARY
          1. Section Includes:

edit note: Delete application not required.

Solvent-based water repellent sealer for exterior above grade horizontal or vertical surfaces as scheduled.

edit note: Delete sections below not relevant to this project; add others as required.

* + - * 1. Related Sections:

Section 03 30 00 – Cast-in-Place Concrete.

Section 03 41 00 – Precast Structural Concrete.

* + - 1. SUBMITTALS
         1. Comply with Section [01 33 00] [ \_\_ \_\_ \_\_ ].
         2. Product Data: Submit manufacturer's technical data sheets and LEED product information for each product.
         3. Submit list of project references as documented in this Specification under Quality Assurance Article. Include contact name and phone number of person charged with oversight of each project.
         4. Quality Control Submittals:

Provide protection plan of surrounding areas and non-work surfaces.

* + - 1. QUALITY ASSURANCE
         1. Comply with Section [01 40 00] [ \_\_ \_\_ \_\_ ].
         2. Qualifications:

Manufacturer Qualifications: Company with minimum 15 years of experience in manufacturing of specified products.

Manufacturer Qualifications: Company shall be ISO 9001:2015 Certified.

Applicator Qualifications: Company with minimum of 5 year’s experience in application of specified products on projects of similar size and scope, and is acceptable to product manufacturer.

Successful completion of a minimum of 5 projects of similar size and complexity to specified Work.

* + - * 1. Field Sample:

Install at Project site or pre-selected area of building an area for field sample, as directed by Architect.

Provide mockup of at least 100 sf (9.3 m2) to include surface preparation, sealant joint, and juncture details and allow for evaluation of repellent performance and finish.

Conduct absorption test on cured field sample. Adjust application until required repellent performance is achieved.

Apply material in accordance with manufacturer’s written application instructions.

Manufacturer’s representative or designated representative will review technical aspects; surface preparation, application, and workmanship.

Field sample will be standard for judging workmanship on remainder of Project.

Maintain field sample during construction for workmanship comparison.

Do not alter, move, or destroy field sample until Work is completed and approved by Architect.

Obtain Architect’s written approval of field sample before start of material application, including approval of aesthetics, color, texture, and appearance.

* + - 1. DELIVERY, STORAGE, AND HANDLING
         1. Comply with Section [01 60 00] [ \_\_ \_\_ \_\_ ].
         2. Comply with manufacturer’s ordering instructions and lead-time requirements to avoid construction delays.
         3. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
         4. Store in unopened containers in clean, dry area between 35 degrees F (2 degrees C) and 110 degrees F (43 degrees C).
      2. PROJECT CONDITIONS

edit note: Solvent based products can be applied in cooler temperatures (down to 20 degrees F, if approved in writing by manufacturer.

* + - * 1. Environmental Requirements:

Minimum application temperature is 20 degrees F (minus 7 degrees C) and rising.

Do not apply in rain or when rain is expected within 4 hours. Do not apply above 95 degrees F (35 degrees C) or below 40 degrees F (4 degrees C) or when temperatures are expected to fall below 20 degrees F (minus 7 degrees C) within 12 hours.

1. PRODUCTS
   * + 1. MANUFACTURERs
          1. Subject to compliance with requirements, provide products from the following manufacturer:

Sika Corporation, 201 Polito Avenue, Lyndhurst NJ 07071. Toll Free 800-933-SIKA (7452), www.sikausa.com.

* + - * 1. Substitutions: Comply with Section [01 60 00] [ \_\_ \_\_ \_\_ ].
        2. Specifications and Drawings are based on manufacturer's proprietary literature from Sika USA. Other manufacturers shall comply with minimum levels of material and detailing indicated in Specifications or on Drawings. Architect will be sole judge of appropriateness of substitutions.
      1. MATERIALS
         1. Clear, breathable, solvent-based, VOC-compliant, greater than 40 percent alkylalkoxysilane penetrating sealer. Penetrates deeply and chemically reacts with concrete to form long-lasting water-repellent surface.

Acceptable Product: Sikagard-440 Clear

* + - * 1. Sealer shall have the following minimum performance:

Active Alkylalkoxysilane Content by Weight: Greater than 40 percent.

Penetration, average depth, depending upon substrate: 0.20 inch (5 mm).

Surface Appearance After Application: Unchanged.

Flash Point, SETA, IPA: 53 degrees F (12 degrees C).

Waterproofing After Abrasion, Alberta Transportation and Utilities Type 1B, 225 sf per gal (5.6 m2/L): 88.4 percent.

Resistance to Chloride:

Criteria of 1.5 at 1/2 inch: Less than 0.22 lb per cy.

Criteria of 0.75 at 1 inch: 0.00 lb per cy.

Water Weight Gain, NCHRP 244 Series II Cube Test, 200 sf per gal (5 m2/L): 86 percent, exceeds criteria.

Absorbed Chloride, NCHRP 244 Series II Cube Test, 200 sf per gal (5 m2/L): 92 percent, exceeds criteria.

Absorbed Chloride, NCHRP 244 Series IV Southern Climate, 200 sf per gal (5 m2/L): 99 percent, exceeds criteria.

Moisture-Vapor Transmission Rate, OHD-L-35: 102 percent.

VOC Content:

Less than 5.01 lbs per gal (600 g/L), less water and exempt solvents.

1. eXECUTION
   * + 1. EXAMINATION
          1. Comply with Section [01 70 00] [ \_\_ \_\_ \_\_ ].
       2. SURFACE PREPARATION
          1. Protection: Protect shrubbery and landscaping with a drop cloth during application. Protect asphalt-based products such as roofing materials or plastic products from overspray.
          2. Prepare surfaces in accordance with manufacturer’s instructions.

edit note: Surface cleanliness is critical for blemish or stain-free results, especially on light colored or white surfaces. Concrete should be cured to 80% of design strength prior to application of Sealer.

* + - * 1. Verify substrate has properly cured. Surfaces shall be clean and structurally sound. Remove dust, dirt, oil, grease, chemical films, coatings and other contaminants before application.
        2. Do not apply sealer if standing water is visible on surface to be treated.
      1. application
         1. Apply sealer in accordance with manufacturer’s instructions.
         2. Stir material thoroughly before and during application.
         3. Apply sealer to saturation.
         4. Apply even distribution of sealer.
      2. PROTECTION
         1. Protect sealer from damage during construction.

END OF SECTION

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Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Technical Data Sheet, product label and Material Safety Data Sheet which are available at www.sikausa.com or by calling (800) 933-7452. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instructions for each Sika product as set forth in the current Technical Data Sheet, product label and Material Safety Data Sheet prior to product use.