SECTION 09 97 23

Sika Thorocoat® 300 Arctic

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.

# PART 1 - GENERAL

* 1. SUMMARY
     1. Section Includes:
        1. Application of waterborne, solvent-based, VOC-compliant, decorative waterproof coating for exterior, above-grade, vertical surfaces.

DELETE SECTIONS BELOW NOT RELEVANT TO THIS PROJECT; ADD OTHERS AS REQUIRED.

* + 1. Related Sections:
       1. Section 03 30 00 – Cast-in-Place Concrete.
       2. Section 04 20 00 – Unit Masonry Assemblies.
       3. Section 04 21 13 – Brick Masonry.
       4. Section 09 24 00 – Portland Cement Plastering.

# 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:
       1. Provide protection plan of surrounding areas and non-cementitious surfaces.

# QUALITY ASSURANCE

* + 1. Comply with Section [01 40 00] [ ].
    2. Qualifications:
       1. Manufacturer Qualifications: Company with minimum 15 years of experience in manufacturing of specified products.
       2. Manufacturer Qualifications: Company shall be ISO 9001:2000 Certified.
       3. Applicator Qualifications: Company with minimum of 5 years experience in application of specified products on projects of similar size and scope, and is acceptable to product manufacturer.
          1. Successful completion of a minimum of 5 projects of similar size and complexity to specified Work.
    3. Field Sample:
       1. Install at Project site or pre-selected area of building an area for field sample, minimum 4 feet by 4 feet (1.2 m by 1.2 m), using specified material.
       2. Apply material in accordance with manufacturer’s written application instructions.
       3. Manufacturer’s representative or designated representative will review technical aspects; surface preparation, repair, and workmanship.
       4. Field sample will be standard for judging workmanship on remainder of Project.
       5. Maintain field sample during construction for workmanship comparison.
       6. Do not alter, move, or destroy field sample until Work is completed and approved by Architect.
       7. Obtain Architect’s written approval of field sample before start of material application, including approval of aesthetics, color, texture, and appearance.

# 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 tightly sealed materials off ground and away from moisture, direct sunlight, extreme heat, and freezing temperatures.
    5. Do not store below 35 degrees F (2 degrees C).

# PROJECT CONDITIONS

* + 1. Environmental Requirements:
       1. Ensure surface and ambient air temperature is minimum of 35 degrees F (2 degrees C) or warmer with frost-free surface. Application may begin before ambient temperature reaches 35 degrees F (2 degrees C) in accordance with manufacturer’s instructions.
       2. Do not apply material if snow, rain, fog, and mist are anticipated within 12 hours after application. Allow surfaces to attain temperature and conditions specified before proceeding with coating application.
       3. Do not apply over sealant joints.
       4. Do not apply to traffic-bearing or other horizontal surfaces.

# PART 2 - 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. Other manufacturers shall comply with minimum levels of material, color selection, and detailing indicated in Specifications or on Drawings. Architect will be sole judge of appropriateness of substitutions.

# MATERIALS

* + 1. Waterborne, solvent-based, VOC-compliant, acrylic, decorative waterproof coating.
       1. Acceptable Product: Sika Thorocoat® 300 Arctic by Sika.
    2. Performance Requirements: Provide coating complying with the following requirements:
       1. Compliance: Alberta Transportation, Type 3 sealer.
       2. Weight, textured: 12.4 to 12.7 lbs per gal (1.49 to 1.54 kg/L).
       3. Weight, smooth: 10.7 to 11.0 lbs per gal (1.28 to 1.32 kg/L).
       4. Solids Content, textured:
          1. By Weight: 67.7 percent.
          2. By Volume: 49.5 percent.
       5. Solids Content, smooth:
          1. By Weight: 51.4 percent.
          2. By Volume: 35.5 percent.
       6. Viscosity, textured and smooth: 122 to 130 KU.
       7. Wind-Driven Rain, Federal Specification TT-C-555B, 98 mph: Passes.
       8. Room-Temperature Flexibility, ASTM D522, 1/2-inch (13-mm) mandrel: Passes.
       9. Artificial Weathering, ASTM G155, Xenon Arc, 4,000 hours: No surface chalking, cracking, or loss of adhesion. Color change, ΔE: Less than 5.0.
       10. Water Vapor Transmission, ASTM D1653 and E96:
           1. Wet Cup: 28.6 perms.
           2. Dry Cup: 3.77 perms.
       11. CO2 Diffusion Resistance, PR EN 1062-6, at 10 mils DFT: 1,660,000 (µ CO2), 43-inch (1,092- mm) equivalent concrete thickness.
       12. Pull-Off Adhesion, ASTM D4541: Greater than 100 psi (0.7 MPa).
       13. Dirt Pick-Up, ASTM D3719, at 2 months: 95.39.
       14. VOC Content:
           1. Fine Texture: 1.79 to 1.87 lbs per gal (215 to 225 g/L), less water and exempt solvents.
           2. Smooth Texture: 2.29 to 2.37 lbs per gal (275 to 285 g/L), less water and exempt solvents.
    3. Approximate Coverage Rates:
       1. Substrates, square feet per gallon (m2/L), per coat:
          1. Troweled Stucco: 60 to 80 (1.5 to 2.0).
          2. Blown on Stucco: 60 to 80 (1.5 to 2.0).
          3. CMU: 50 to 60 (1.2 to 1.5).
          4. Brick: 60 to 80 (1.5 to 2.0).
          5. Concrete: 70 to 90 (1.7 to 2.2).
       2. Average Wet Film Thickness: 16 to 27 mils (0.41 to 0.68 mm).
       3. Average Dry Film Thickness:
          1. Fine: 8 to 14 mils (0.20 to 0.36 mm).
          2. Smooth: 5 to 10 mils (0.13 to 0.25 mm).

COATING IS AVAILABLE IN 4 TINT BASES. A TOTAL OF 463 COLORS IN THE SIKA COLOR PORTFOLIO CAN BE CREATED FROM THE 4 TINT BASES. REFER TO THE POPULAR PALETTE FOR WALL COATINGS FOR COLOR FORMULAS. REFER TO THE SIKA COLOR PORTFOLIO FOR THE MOST POPULAR 40 COLORS. FOR CUSTOM COLOR FORMULATIONS, CONSULT WITH SIKA.

* + 1. Colors: .

DELETE TEXTURE BELOW NOT REQUIRED FOR PROJECT.

* + 1. Texture:
       1. Fine.
       2. Smooth.

# PART 3 - EXECUTION

* 1. EXAMINATION
     1. Comply with Section [01 70 00] [ ].

# SURFACE PREPARATION

* + 1. Protection: Protect adjacent Work areas and finish surfaces from damage during coating application.
    2. Prepare surfaces in accordance with manufacturer’s instructions.
    3. Ensure that substrate is sound, clean, dry, and free of dust, dirt, oils, grease, laitance, efflorescence, mildew, fungus, biological residues, and other contaminants that could prevent proper adhesion.
    4. Ensure concrete substrates have a minimum 28-day cure and are free of bond-inhibiting contaminants.
    5. Clean surface to achieve texture similar to medium-grit sandpaper.
    6. Repair holes and spalled and damaged concrete with repair materials approved by coating manufacturer.
    7. Remove protruding concrete accessories and smooth out irregularities.
    8. When chemical cleaners are used, neutralize compounds and fully rinse surface with clean water. Allow surface to dry before proceeding.
    9. Remove blisters or delaminated areas and sand edges to smooth rough areas and provide transition to existing paint areas.
    10. Check adhesion of existing paint in accordance with ASTM D3359, measuring adhesion by Tape Method A.
    11. Treat cracks greater than 1/32 inch (0.8 mm) with patching compound.
    12. Treat cracks greater then 1/4 inch (6 mm) as expansion joints and fill with sealant approved by coating manufacturer.
    13. Prepare and treat cracks in accordance with manufacturer’s instructions.

# MIXING

* + 1. Mix coating in accordance with manufacturer’s instructions to ensure uniform color and aggregate disbursement and to minimize air entrapment.
    2. In multi-pail applications, mix contents of each new pail into partially used pail to ensure color consistency and smooth transitions from pail to pail.

# APPLICATION

* + 1. Apply coating in accordance with manufacturer’s instructions.
    2. Apply coating at correct coverage rate to properly prepared surfaces.
    3. Apply coating in pinhole-free, continuous membrane for waterproofing integrity.

# PROTECTION

* + 1. Protect applied coating from damage during construction.

END OF SECTION

Disclaimer-

The preceding specifications are provided by Sika Corporation as a guide for informational purposes only and are not intended to replace sound engineering practice and judgment and should not be relied upon for that purpose. **Sika Corporation makes no warranty of any kind, either express or implied, as to the accuracy, completeness or the contents of these guide specifications**. Sika Corporation assumes no liability with respect to the provision or use of these guide specifications, nor shall any legal relationship be created by, or arise from, the provision of such specifications **SIKA SHALL NOT BE RESPONSIBLE UNDER ANY LEGAL THEORY TO ANY THIRD PARTY FOR ANY DIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND ARISING FROM THE USE OF THESE GUIDE SPECIFICATIONS.** The specifier, architect, engineer or design professional or contractor for a particular project bears the sole responsibility for the preparation and approval of the specifications and determining their suitability for a particular project or application.

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.