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SIKA SPECIFICATION NOTE: This guide specification includes test methods, materials and installation procedures for Sikalastic Polyurethane Traffic Coatings, a cold applied, highly durable, seamless, fully bonded, elastomeric polyurethane waterproofing membrane which is applied direct to concrete, plywood, and existing traffic coatings, and is intended for pedestrian traffic.

SECTION 07 18 13

PEDESTRIAN TRAFFIC COATINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Provide a polyurethane traffic coating system as specified and as indicated on the Drawings.
- B. Related Work: The following items are not included in this Section and are specified under the designated Sections:

Section 03 53 00 – CONCRETE TOPPING.

Section 06 16 00 – SHEATHING.

Section 07 60 00 – FLASHING AND SHEET METAL.

Section 07 92 13 – ELASTOMERIC JOINT SEALANTS.

Section 07 27 26 – FLUID APPLIED MEMBRANE AIR BARRIER

1.3 PERFORMANCE REQUIREMENTS

- A. Two-component, chemically curing, aliphatic fluid applied polyurethane traffic membrane with integral texture aggregate for use subject to pedestrian traffic. The waterproofing system is intended to perform as a continuous barrier against liquid water and to flash or discharge to the incidental water. Membrane system shall accommodate movements of building materials as required with accessory sealant materials at such locations including: changes in substrate, perimeter conditions, control joints, railing posts, drains and penetrations.
- B. Installed waterproofing membrane/surfacing system shall not permit the passage of water and will withstand the anticipated pedestrian traffic wear exposures in accordance with the most current revision of ASTM C957, High-Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane with Integral Wearing Surface.
- C. Intent is to bridge and seal the following air and water leakage pathways and gaps:

Connections of the walls to the deck.

- 1. Piping, conduit, duct and similar penetrations.

All other air leakage and water intrusion pathways to building envelope connections.

1.4 SUBMITTALS

- A. Submittals: Comply with project requirements for submittals as specified in Division 01.
- B. Product Data:

Materials list of items proposed to be provided under this Section.

Manufacturer's specifications and other data needed to prove compliance with the specified requirements. Drawings or catalog illustrations in sufficient detail to show installation and interface of the work of this Section with the work of adjacent trades.

Manufacturer's current recommended installation procedures.

- C. Mock-Ups: Provide a mock-up on site to demonstrate workmanship and final appearance. Locate in an area acceptable to the Architect. Accepted mock-up may remain in place.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications:

Installer shall have at least three years of experience in installing materials of types specified and shall have successfully completed at least three projects of similar scope and complexity.

Installer shall designate a single individual as project foreman who shall be on site at all times during installation.

- B. Field Adhesion Test Method: Use manufacturer's standard field adhesion test methods and methods to verify proper priming and surface preparation techniques required to obtain optimum adhesion. Evaluate and report results of field adhesion testing to EOR and or Owner.
- C. Waterproofing Terminology: Refer to ASTM D1079 and the glossary of the Sika Waterproofing Manual for definitions of waterproofing terms related to this section.

1.6 PRE-INSTALLATION CONFERENCE

- A. Prior to scheduled commencement of installation and associated work, conduct a meeting at the project site with the installer, architect/consultant, owner, manufacturer's representative and any other persons directly involved with the performance of the Work. The Installer shall record conference discussions and to include decisions and agreements reached (or disagreements) and furnish copies of recorded discussions to each attending party. The main purpose of this meeting is to review foreseeable methods and procedures related to the Work.

1.7 REGULATORY REQUIREMENTS

- A. Applicable Regulations: Comply with local code and requirements of authorities having jurisdiction. Do not exceed VOC regulations as established by the State in which they are being installed; including total VOC content, in grams per liter, for all system components (i.e. primers, adhesives, coatings, and similar items.)

1.8 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to the job site in the manufacturer's unopened containers with all labels intact and legible at time of use. Handle and store materials in accordance with manufacturer's recommendations with proper precautions to ensure fitness of material when installed.

1.9 WARRANTY

- A. Warranty: Provide manufacturer's standard warranty for each type of product and system. Include written testing documentation and test reports if requested by Architect.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Basis-of-Design Manufacturer: Sika Corporation, 201 Polito Avenue, Lyndhurst NJ 07071. Toll Free 800-933-SIKA (7452), www.usa.sika.com. No substitutions without prior written approval by the Architect.

2.2 PEDESTRIAN BALCONY COATINGS (SIKALASTIC 726 BALCONY ONE SHOT SYSTEM)

- A. Pedestrian Traffic Coating: Sikalastic 726 Balcony One Shot System comprised of the following:

Optional primers as determined by field conditions. Sikalastic 726 Balcony One Shot System is primerless for many applications. Verify the need for a primer with the manufacturer especially when overcoating an existing traffic membrane. Sample mock ups are typically required to confirm acceptable adhesion:

1. Sikalastic Primer fast curing 1C PU primer.
2. Sikalastic FTP Lo-VOC 100% solids epoxy primer (as a standard primer and for recoat applications, elevated moisture content up to 6% determined by a Tramex Moisture Meter, and plywood decks).
3. Sikalastic MT 100% solids epoxy primer (for substrates over unvented metal pan decks or applications with elevated moisture content up to 6 % determined by a Tramex Moisture Meter).
4. Sikalastic EP Primer Rapid – Metal surfaces to be overcoated remove rust before priming.
5. Sikaflex 260 Primer – Metal surfaces to receive Sikaflex sealant cant beads remove rust before priming.
6. Note do not proceed with the application of the Sikalastic 726 Balcony One Shot System if the deck is outgassing. Wait for temperatures to be dropping before starting the work.
7. Sikalastic 720 Base two-component aromatic polyurethane base coat detailing of cracks, joints or flashing details as required.
8. Sikalastic 710 Base single-component aromatic polyurethane base coat detailing of cracks, joints or flashing details as required.

- B. Applied Total Dry Film Thickness:

1. Sikalastic 726 Balcony One Shot System Membrane: 38 mils wet, 35 mils dry yield.

- C. Aggregate:

1. Integrally textured for slip resistance. No need to add additional aggregate to the Sikalastic 726 Balcony One Shot Pedestrian Membrane System.
2. Decorative aggregate: not recommended for use with the Sikalastic 726 Balcony One Shot system instead use Sikalastic 710/735AL/748PA coating. The selection of aggregate for this system is that it must be UV-stable, ceramic-coated quartz aggregate in a standard or custom color blend. Intended for a full broadcast application where a clear sealcoat will be applied. Aggregate shall be supplied in pre-blended and packaged bags to insure uniformity.

- D. Fabric Reinforcement: Typically required for local reinforcing of a "detail coat" in seams over plywood decks. Use polyester tape - Sikalastic Flexitape Heavy where reinforcing is required.

E. Coating: Typical Physical properties complying with the following.

Sikalastic 726 Balcony One Shot - Aliphatic Coating

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|---|---|
| 1. Pot Life | 20-30 minutes |
| 2. Total Volume Solids (ASTM D2697) | 92% |
| 3. Tensile Strength (ASTM D412) | 2400 +/- 200 psi |
| 4. Elongation at Break (ASTM D412) | 500 +/- 50% |
| 5. Tear Resistance (Die C, ASTM D624) | 300lbf/in. +/- 50 lbf/in. |
| 6. Shore A Hardness (ASTM D2240) | 90 +/- 5 |
| 7. Film Thickness | 35 mils (38 WFT) 50 sf/1.18-gal A + B mix |
| 8. Tests were performed with material and curing conditions at 75F and 50% relative humidity. | |

2.3 Properties of optional Sikalastic detail coats where required:

A. Sikalastic 710 Base Coat

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|---|-------------------|
| 1. Viscosity | 6500 +/- 3000 cps |
| 2. Total Volume Solids (ASTM D2697) | 71% |
| 3. VOC Content (ASTM D2369-81) | 240 g/l |
| 4. Tensile Strength (ASTM D412) | 800 +/- 100 psi |
| 5. Elongation at Break (ASTM D412) | 500 +/- 50% |
| 6. Tear Resistance (Die C, ASTM D624) | 170 +/- 25 pli |
| 7. Hardness (ASTM D2240) | 55 +/- 5 Shore A |
| 8. Film Thickness 23 DFT (32 WFT) | 50 sq.ft./gallon |
| 9. Tests were performed with material and curing conditions at 75F and 50% relative humidity. | |

B. Sikalastic 720 Base Coat:

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|---|-------------------------|
| 1. Pot Life | 10-15 minutes |
| 2. Total Volume Solids (ASTM D2697) | 100% |
| 3. VOC Content (ASTM D2369) | <15 g/l |
| 4. Tensile Strength (ASTM D412) | 2,500 psi (+/- 100 psi) |
| 5. Elongation at Break (ASTM D412) | 800% (+/- 50%) |
| 6. Tear Resistance (Die C, ASTM D624) | 300 pli (+/- 25 pli) |
| 7. Hardness (ASTM D2240) | 80 +/- 5 Shore A |
| 8. 23 DFT (23 WFT) | 70 sq.ft./gallon |
| 9. Tests were performed with material and curing conditions at 75F and 50% relative humidity. | |

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces and conditions are ready to accept the Work of this section. Notify Architect in writing of any discrepancies. Commencement of the Work in an area shall mean Installer's acceptance of the substrate.

3.2 PREPARATION

- A. Substrates shall be clean, dry, sound and free of surface contaminants, with an open texture. Remove all traces of dust, laitance, grease, oils, curing compounds, form release agents and foreign particles by mechanical means, such as milling, scarifying, or shotblasting, as acceptable to the Architect. Blow surface free of dust using compressed air line-equipped with an oil trap. All projections, depressions and rough spots should be dressed off to achieve a level surface prior to the application.

- B. Concrete shall be cleaned and prepared to achieve a laitance and contaminant free, open textured surface by blast cleaning or equivalent mechanical means (CSP 3-4 per ICRI guidelines).
- C. Plywood shall be clean and smooth, APA and exterior grade, not less than 1/2-inch-thick, and spaced and supported according to APA guidelines. Seams should be sealed with Sikaflex 2c or 1a and apply a 4" wide detail base coat layer with imbedded Sikalastic Flexitape Heavy fabric tape reinforcement centered over the seams and flashed up onto the wall(s).
- D. Metal shall be thoroughly cleaned by grinding or blast cleaning follow with a solvent wipe of Xylol and primed with a metal primer: Sikalastic EP Primer Rapid, Sikaflex 260 Metal Primer.

3.3 PRIMING – DO NOT PROCEED WITH MEMBRANE WORK IF DECK IS OUTGASSING CONDUCT A RUBBER MAT TEST TO CONFIRM NO OUTGASSING IS PRESENT.

- A. Concrete (<4% moisture content by weight, measured with Tramex Concrete Moisture Encounter Meter):
 - 1. Apply Sikalastic FTP Lo-VOC primer at 200 sf/gal. with a flat squeegee or roller and work well into the substrate to insure adequate penetration and sealing. Puddles are to be avoided. Premix both components. Add the 5 gallons of Sikalastic FTP Lo-VOC Primer, Part "B" to the 10 gallons of Part "A". Mix thoroughly with a mechanical mixer (Jiffy) for 3 minutes. This mixture will appear as a green transparent color. Allow primer to cure a minimum of 12 hours at 70°F and 50% RH or until tack free before applying second primer or base coat.
- B. Concrete (4% to 6% moisture content by weight, measured with Tramex Concrete Moisture Encounter Meter):
 - 1. For concrete substrates with 5% maximum moisture content by weight, apply Sikalastic MT Primer at 175 sf/gal. with a flat squeegee or roller and work well into the substrate to insure adequate penetration and sealing. Puddles are to be avoided. For concrete substrates with >5% up to 6% maximum moisture content by weight, apply a second coat of Sikalastic MT primer at 175 sf/gal. Refer to data sheet for more detailed information, or consult Sika for other primer options. Premix both components. Sikalastic MT Primer, Part "A" is red in color. Sikalastic MT Primer, Part "B" is light amber in color. Add the 1.5 gallon of Sikalastic MT Primer, Part "B" to the 3 gallons of Part "A" in the short-filled Part "A" pail. Mix thoroughly with a mechanical mixer (Jiffy) for 3 minutes. This mixture will appear as a red transparent color. Allow primer to cure a minimum of 12 hours at 70°F and 50% RH or until tack free before applying second primer or base coat.
 - 2. For concrete substrates with 5% maximum moisture content by weight, apply Sikalastic FTP Lo-VOC primer at 200 sf/gal. with a flat squeegee or roller and work well into the substrate to insure adequate penetration and sealing. Puddles are to be avoided. For concrete substrates with >5% up to 6% maximum moisture content by weight, apply a second coat of Sikalastic FTP Lo-VOC primer at 200 sf/gal. Premix both components. Add the 5 gallons of Sikalastic FTP Lo-VOC Primer, Part "B" to the 10 gallons of Part "A". Mix thoroughly with a mechanical mixer (Jiffy) for 3 minutes. This mixture will appear as a green transparent color. Allow primer to cure a minimum of 12 hours at 70°F and 50% RH or until tack free before applying second primer or base coat.
 - 3. Metal: Metal shall be thoroughly cleaned by grinding or blast cleaning follow with a solvent wipe of Xylol and primed with a metal primer: Sikalastic EP Primer Rapid, Sikaflex 260 Metal Primer.

C. Plywood

4. Apply Sikalastic FTP Lo-VOC primer at 200 sf/gal. with a flat squeegee or roller and work well into the substrate to insure adequate penetration and sealing. Puddles are to be avoided. Premix both components. Add the 5 gallons of Sikalastic FTP Lo-VOC Primer, Part "B" to the 10 gallons of Part "A". Mix thoroughly with a mechanical mixer (Jiffy) for 3 minutes. This mixture will appear as a green transparent color. Allow primer to cure a minimum of 12 hours at 70°F and 50% RH or until tack free before applying second primer or coating.

3.4 DETAILING

- A. Non-Structural Cracks up to 1/16 inch: Apply a detail coat of Sikalastic 720 Base at 23 mils wet 4 inches wide, centered over the crack. Or apply a detail coat of Sikalastic 710 Base at 32 wet mils 4 inches wide, centered over the crack. Allow to become tack free before overcoating.
- B. Cracks and Joints over 1/16 inch up to 1 inch: Rout and seal with Sikaflex 2c NS/SL or Sikaflex1a sealant and allow to skin over and cure. Apply a detail coat of Sikalastic 720 Base at 23 mils wet 4 inches wide, centered over crack. Or apply a detail coat of Sikalastic 710 Base at 32 wet mils 4 inches wide, centered over the crack. Allow to become tack free before overcoating.
- C. Fabric Reinforcement: An optional 3" or 6" wide Sikalastic Flexitape Heavy fabric strip may be embedded within a detailing base coat. Flexitape width shall be chosen such that a minimum of 1" tape is embedded on either side of the crack/joint. Apply additional base coat as required to fully embed the Flexitape Heavy in the coating. Allow to become tack free before overcoating.
- D. Joints over 1 inch: Treat as expansion joints and brought up through the Sikalastic 726 Balcony One Shot Traffic System and sealed with Sikaflex 2c NS/SL or Sikaflex1a sealant.

3.5 SIKALASTIC 726 BALCONY ONE SHOT SYSTEM

- A. Sikalastic 726 Balcony One Shot: Premix the Part A component using a low speed (400–600 rpm) mechanical mixer and Jiffy Paddle (2-5 Gallon Model) to obtain uniform color, making sure to scrape the solids from the bottom and sides of the pail. Pour Part C slowly into Part A and ensure aggregate from Part C is fully mixed into Part A. Slowly pour Part B into Part A/C mix and while mixing scrape the side of the container. Mix the combined material thoroughly until a homogenous mixture and uniform color is obtained (typically 3 minutes). Use care not to allow the entrapment of air into the mixture. Do not break down kits into smaller quantities; portions are premeasured. Use care not to allow the entrapment of air into the mixture. Apply at the recommended coverage rate of 43 sq.ft./gallon to yield 38 WFT, using a 1/4" notched squeegee or trowel, and backroll using a 3/8" phenolic resin core roller. Extend coating over entire area including previously detailed cracks and control joints. Coating should be tack free after about 6 hours at 70°F and 50% RH; base coat must be tack free before overcoating. Allow it to cure minimum of 8 hours before opening to pedestrian traffic.

3.6 LIMITATIONS

- A. Avoid dew point conditions during application relative humidity must be no more than 95% and substrate temperatures must be at least 5°F above measured dew points temperature.
- B. Maximum moisture content of the concrete substrate by weight when measured with a Tramex CME is 4%. Refer to primer recommendations above and as listed on the Technical Data Sheet.

- C. Minimum ambient substrate temperatures during application and curing are 40°F with the maximum of 95°F.
- D. Do not store materials outdoors exposed to direct sunlight and moisture. Cover and protect materials stored on site with breathable type covers such as canvas tarpaulins to allow venting and protection from weather and moisture. Observe temperature storage and conditioning requirements found on the Technical Data Sheet.
- E. Do not thin with solvents.
- F. Minimum age of concrete is 21-28 days.
- G. Consult Sika for any surface repairs recommendations. Surface irregularities may reflect through the finished coating.
- H. Do not apply the coating to any porous or damp surface where moisture vapor transmission will occur during application and cure.
- I. Substrates must be dry prior to application. Do not apply to a frosted, wet or damp surface.
- J. Do not proceed with installation if rain is imminent within 6 – 12 hours of application. Allow sufficient time for the substrate to dry after rain or inclement weather as there is the potential for bonding problems.
- K. When applying over an existing coating a mock up is required to confirm compatibility and an acceptable adhesion result can be achieved. Contact the manufacturer for testing.
- L. Precautions should be taken to prevent odors and/or vapors from entering the building/structure, including but not limited to turning off and sealing air intake vents or other means of ingress for odors and for vapors into the building/structure during product application and cure.
- M. On grade, lightweight concrete, asphalt pavement, or insulated split slab applications must not be coated with the Sikalastic 726 Balcony One Shot without Sika Technical Review. Contact Sika Technical Services or Product Engineering.
- N. Unvented metal pan decks or decks containing a between slab membrane require further technical evaluation and priming with a moisture tolerant primer – contact Sika regarding recommendations.
- O. Do not subject the Sikalastic 726 Balcony One Shot system to a continuous water immersion condition.
- P. Mock ups to verify application methods and substrate conditions as well as desired skid resistance and aesthetics are highly recommended.
- Q. Sikalastic 726 Balcony One Shot system requires proper water management including proper drainage on a waterproofing membrane and proper use of pitched or a sloped substrate.

3.7 CLEANING

- A. Remove uncured materials from tools or other surfaces with an approved solvent. Remove cured materials by mechanical means.
- B. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

END OF SECTION

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