

THIS IS A SAMPLE SPECIFICATION FOR THE INDICATED PRODUCT. IT IS THE RESPONSIBILITY OF THE SPECIFIER AND/OR END USER TO DETERMINE THE SUITABILITY OF A PRODUCT OR SYSTEM FOR A PARTICULAR PURPOSE.

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) Format, including *MasterFormat* (2004 Edition), *SectionFormat*, and *PageFormat*, contained in the CSI *Manual of Practice*.

The section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate with other specification sections and the drawings.

SECTION 09 67 26 **Verrazzo®**

Epoxy Mosaic Floor System

Specifier Notes: This section covers Sika Flooring's "Verrazzo®" Epoxy Mosaic Floor System. Consult Sika Corporation (Industrial Flooring) for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Sikafloor® 107 Epoxy primer
- B. Sikafloor® 215 Epoxy binder resin with color additive
- C. Sikafloor® 215 Satin Epoxy top coat resin
- D. Optional Topcoat [Click here and type Optional Top Coat Short Description]

1.2 RELATED SECTIONS

Specifier Notes: Edit the following list as required for the project. List other sections with work directly related to the floor coating.

- A. Section 03 30 00 - Cast-in-Place Concrete.
- B. Section 03 01 00 - Concrete Rehabilitation.
- C. Section 03 39 00 – Concrete Curing

1.3 REFERENCES

Specifier Notes: List standards referenced in the section, complete with designations and titles. This article does not require compliance with standards, but is merely a listing of those used.

- A. ASTM C 307 - Tensile Strength of Chemical-Resistant Mortar, Grouts, and Monolithic Surfacing.
- B. ASTM C 413 - Absorption of Chemical-Resistant Mortars, Grouts, and Monolithic Surfacing.
- C. ASTM C 579 - Compressive Strength of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes.

- D. ASTM D 696 - Coefficient of Linear Thermal Expansion of Plastics.
- E. ASTM D-790 – Flexural Strength/Flexural Modulus of Elasticity
- F. ASTM D-1644 – Determination of Solids Content
- G. ASTM D-1044 – Abrasion Resistance by Tabor Abrasor
- H. ASTM D 2240 - Rubber Property - Durometer Hardness.
- I. ASTM D 4258 - Surface Cleaning Concrete for Coating.
- J. ASTM D 4259 - Abrading Concrete.
- K. ASTM C-413 - Water Absorption
- L. ICRI Guideline 03732 – Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays

1.4 SUBMITTALS

- A. Comply with Section 01 33 00 - Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including physical properties and colors available.
- C. *Optional Submittal:* Product Samples: Submit Architectural Standard samples representative of the final finish, as applied. The Standard shall be approved in writing by the Architect and shall be the final standard of acceptance of the finish.
- D. Maintenance Instructions: Submit manufacturer's maintenance instructions, including maintenance procedures and materials, procedures for stain removal and surface repair, and recommended schedule for cleaning.

1.5 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Applicator: Use applicator experienced in application of specified materials for a minimum of [5] [Five] years on projects of similar size and complexity. Provide list of completed projects including project name and location, name of architect, name of material manufacturer, and approximate quantity of materials applied.
 - 2. Applicator's Personnel: Employ only persons trained for application of specified materials.

Specifier Notes: Describe requirements for a meeting to coordinate the application of the floor coating and to sequence related work.

- B. Pre-application Meeting: Convene a pre-application meeting [2] [Two] weeks before start of application of floor coating. Require attendance of parties directly affecting work of this section, including Contractor, Architect, applicator, and manufacturer's representative. Review surface preparation, priming, application, curing, protection, and coordination with other work.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name, manufacturer, batch or lot number, and date of manufacture. Do not store in direct sunlight or high heat conditions.
- B. Storage:
 - 1. Store materials in accordance with manufacturer's instructions.
 - 2. Keep containers sealed until ready for use.
 - 3. Do not subject material to excessive heat or freezing; do not apply material that has been subjected to excessive heat or freezing. Material subjected to excessive heat or freezing shall be separated from inventory and destroyed by mixing all three components. The solid reacted product shall be disposed of in environmentally sound and regulatory compliant manner.
 - 4. Shelf life: 1 [one] year after date of manufacture, in unopened containers, under normal conditions.
- C. Handling: Protect materials during handling and application to prevent damage or contamination.
- D. Condition materials for use to 60° – 85°F (15° - 30°C) for 24 hours prior to application.

1.7 SITE CONDITIONS

- A. Do not apply materials if floor or air temperature is below 60°F (15°C).
- B. Do not apply materials if relative humidity is above 85 percent or within 5° of dew point at time of application.
- C. Utilities, including electric, water, heat and finished lighting to be supplied by General Contractor
- D. Maintain room temperature between 60° – 85°F (15° - 30°C) for 48 hours before, during and 48 hours after installation, or until cured.
- E. At the time of application ensure the minimum substrate temperature is above 60°F (15°C) and the substrate temperature is 5°F (3°C) above the measured dew point at the time of application.
- F. Erect suitable barriers and post legible signs at points of entry to prevent traffic and trades from entering the work area during application and cure period of the floor.
- G. Protection of finished floor from damage by subsequent trades shall be the responsibility of the General Contractor.

1.8 WARRANTY

- A. Provide a warranty covering materials and workmanship for a period of 1 [one] year after date of installation.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Manufacturer shall be certified under ISO 9001: All liquid materials, including primers, resins, curing agents, finish coats, and sealants are manufactured and tested under an ISO 9001 registered quality system.
- B. Approved Manufacturer shall be Sika Corp., Industrial Flooring, 201 Polito Avenue, Lyndhurst, NJ 07071
Phone 201.933.8800
Fax 201.933.6225
www.sikafloorusa.com

Specifier Notes: Sikafloor® Verrazzo® Epoxy Mosaic system requires four [4] components: Epoxy Primer, Body Coat, Grout Coats, and Finish Coat. Optional Additional Finish coats are available as required to achieve specific finishes.

2.2 MATERIALS

- A. Sikafloor® 107 Epoxy Primer
 - 1. 100% solids, Low modulus, low viscosity, penetrating epoxy primer for concrete.
- B. Sikafloor® 215.
 - 1. Description: 100% epoxy, decorative, monolithic epoxy flooring system, color quartz and special aggregate filler. Nominal finished thickness: 3/16-inch (3.2mm).
 - 2. Compressive Strength: ASTM C 597: 10,700 psi (73.8 Mpa)
 - 3. Tensile Strength: ASTM C 307, 6,800 psi (47.0 Mpa)
 - 4. Coefficient of Thermal Expansion: ASTM D-696: 2.32×10^{-5} in/in./F°
 - 5. Hardness: ASTM D 2240, Shore D: 80
 - 6. Flexural Strength (ASTM C-580), 3,520 psi (24.3 Mpa)
 - 7. Impact Resistance: Gardner Impact Tester – >160 in/lb
 - 8. Percent Solids, By Weight: ASTM D-1644, 100%
 - 9. Water Absorption: ASTM C-413, 0.3%
 - 10. Abrasion Resistance: ASTM D 4060, .085 grams, 1,000 gram load/1,000 cycles, CS-17
 - 11. Curing Shrinkage: ASTM D-531-90, 5.0×10^{-4}

Specifier Notes: Sikafloor® Verrazzo® requires three components: special Verrazzo® Aggregate (White or Black), Epoxy Color Additive pack in appropriate color, and colored quartz aggregate in required blend. Determine the Architect's color requirement, consult Sikafloor® for further information.

- 12. Color: Sikafloor® Verrazzo® Aggregate VER 11 [White] [Black] combined with Sikafloor® Epoxy Color Additive Color: _____, [Refer to appropriate Sikafloor® color chart] combined with trowel-grade colored quartz blend _____ [Refer to appropriate Sikafloor® quartz color blend chart]
- C. Sikafloor® 203
 - 1. Description: 100% solids, clear, low viscosity epoxy grout coat.
 - 2. Grout coats applied as required per the Manufacturer's technical data sheet.
- D. Sikafloor® 215 Satin
 - 1. Description: 100% solids, clear, low gloss epoxy top coat.
 - 2. Thickness: Applied at 4 –5 mils wet film thickness.

Specifier Notes: Sikafloor® Verrazzo® may receive optional finish coat(s) to complete system and provide sealed, cleanable surface. Finished texture depends on thickness of final topcoats.

C. Optional Finishes [Click here and type OPTIONAL FINISHES AND PRODUCTS TO BE USED]

1. [Click here and type OPTIONAL FINISHES AND PRODUCTS TO BE USED]based top d
2. [Click here and type OPTIONAL FINISHES AND PRODUCTS TO BE USED]

Specifier Notes: Determine Architect's requirement for cove base or other curb/wall treatment. Delete if not required.

D. [Click here and type OPTIONAL COVE BASE TO BE USED]

1. [Click here and type OPTIONAL PRODUCTS TO BE USED]
2. [Click here and type OPTIONAL PRODUCTS TO BE USED] by the
3. Height: [4] [Four] inches, or as required by Architect.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to receive Sikafloor® Verrazzo® . Notify Architect if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected. Do not apply to substrate treatments for moisture, repair, or leveling not of the same Manufacturer.
- B. Do not apply Sikafloor® Verrazzo® to concrete less than 60 days old. Consult Technical Service prior to application when concrete has not cured for 60 days.
- C. Do not apply Sikafloor® Verrazzo® to sand-cement setting beds, regardless of condition. Sand-cement beds shall be removed to structural concrete substrate and re-leveled/sloped as necessary to achieve grade and/or adequate drainage.
- E. Do not apply to asphaltic or bitumen membranes, soft wood, aluminum, copper or fiberglass reinforced polyester/vinyl ester composites.
- F. Application to glazed or vitrified brick and tile, structural wood, or steel shall be approved only with the Manufacturer's written recommendation

3.2 SURFACE PREPARATION

- A. Prepare concrete surfaces in accordance with manufacturer's instructions and ASTM D 4258.
- B. Remove dirt, oil, grease, wax, laitance, curing compounds, water-soluble concrete hardeners, and other surface contaminants.
- C. Remove sealers, finishes, and paints.
- D. Remove unsound concrete by scarifying, sand blasting, shot blasting, or high pressure water blasting.
- E. Chemical Surface Preparation:
 1. Chemical surface preparation (acid etching) is unacceptable and will void Manufacturer's warranty.

F. Mechanical Surface Preparation:

1. Mechanically abrade concrete surface in accordance with manufacturer's instructions.
2. Leave concrete surface with an aggressive texture.
3. Remove concrete dust.
4. Conform to ASTM D-4259.
5. Surface profile shall conform to IRCI Guideline 03732 CSP 3, minimum.

3.3 CONTROL JOINTS, CRACKS

- A. Provide repair and treatment of control joints and surface cracks utilizing manufacturer's standard materials and installation details.

3.4 APPLICATION

- A. Repair concrete substrate as required using SikaQuick® 1000 cementitious repair/resurfacer in accordance with Manufacturer's instructions.
- B. Do not add thinners to materials. No thinners shall be approved or allowed.
- C. For coverage rates, consult data sheet for Sikafloor® Verrazzo®
- D. Finish surface to be smooth, with uniform texture, free of surface defects, and without porous areas.
- E. Follow Manufacturer's recommendations on terminations and connections to walls, drains, doorways, columns and floor-to-floor transitions.

3.4 CLEANUP

- A. Remove masking, draping, and other protection from adjacent surfaces.
- B. Remove remaining materials and debris from job site and dispose of them in according with local rules and regulations. Leave area in clean condition free of debris.

3.5 PROTECTION

- A. Protect Sikafloor® Verrazzo® floor resurfacer during curing from traffic and chemical spillage. Based on air temperature of 73°F/23°C
1. Foot Traffic: 24 hours.
 2. Medium Wheeled Load 48 hours.
 3. Full Cure: 72 hours

END OF SECTION

See legal disclaimer and pertinent information following

All information provided by Sika Corporation ("Sika") concerning Sika products, including but not limited to, any recommendations and advice relating to the application and use of Sika products, is given in good faith based on Sika's current experience and knowledge of its products when properly stored, handled and applied under normal conditions in accordance with Sika's instructions. In practice, the differences in materials, substrates, storage and handling conditions, actual site conditions and other factors outside of Sika's control are such that Sika assumes no liability for the provision of such information, advice, recommendations or instructions related to its products, nor shall any legal relationship be created by or arise from the provision of such information, advice, recommendations or instructions related to its products. The user of the Sika product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with the full application of the product(s).

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Quality Certification Numbers: Lyndhurst: FM 69711 (ISO 9000), FM 70421 (QS 9000), Marion: FM 69715, Kansas City: FM 69107, Santa Fe Springs: FM 69408

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