

Sikafloor® Verrazzo

Description Sikafloor Verrazzo is a trowel applied decorative, monolithic epoxy flooring system that provides an aesthetic, chemically resistant, and durable wearing surface. The factory-blended aggregate and trowel grade quartz blend provides the proper gradation of mineral granules for greater compaction and density, which in turn provides higher compressive and impact strength. Verrazzo floor system is installed at 3/16" in thickness.

Where to Use

- Pharmaceutical plants
- Institutional facilities
- Commercial lobbies and office areas
- Research laboratories
- Break rooms and cafeterias
- Animal research facilities

Advantages

- Lower maintenance and life cycle cost vs. tile, sheet goods, and carpet.
- Decorative mosaic patterns
- An economic alternative to epoxy terrazzo
- Tough, durable and seamless floor low odor
- (Optional) Integral cove, base and curbs
- (Optional) Crack-bridging/waterproofing flexible membrane

Chemical Resistance Before applying for protection against specific chemical environments, consult Sikafloor 215 Clear Satin Chemical Resistance Guide or refer to the Chemical Resistance Guide of the top coat applied or contact Sika Technical Services at 800-933-SIKA (7452).

How to Use Surface Preparation Surface must be clean, sound and dry. Remove dust, laitance, grease, curing compounds, bond inhibiting impregnations, waxes and any other contaminants. All projections, rough spots, etc. should be dressed off to achieve a level surface prior to the application. Concrete - Should be cleaned and prepared to achieve a laitance and contaminant free, open textured surface by shot blasting or equivalent mechanical means. (CSP-3 as per ICRI guidelines). Sweep and vacuum any remaining dirt and dust with a wet/dry vacuum. Removing residual dust will help ensure a tenacious bond between the primer and substrate. Whenever "shot-blasting" is utilized, be careful to leave concrete with a uniform texture. Over "blasting" will result in reduced coverage rates of the primer and/or subsequent topcoats. It is also possible that the texture of the "shot-blast pattern" may show through the last coat. This is known as "tracking". The compressive strength of the concrete substrate should be at least 3500 psi (24 MPa) at 28 days and at least 250 psi (1.7 MPa) in tension at the time of application of Sikafloor 107.

Typical Data

Compressive Strength	ASTM C-579	10,700 psi (73.8 MPa)
Tensile Strength, Binder	ASTM D-638	6,800 psi (47 MPa)
Impact Resistance	Gardner Impact Tester	>160 in/lb
Abrasion Resistance	ASTM D-4060	0.085 gm
Flammability	ASTM D-635	Self Extinguishing
Water Absorption	ASTM C-413-88	0.3%
Coefficient of Thermal Expansion	ASTM C-531-90	2.3×10^{-5} in/in/°F
Flexural Strength	ASTM C-580-90	3,520 psi (24.3 MPa)
Curing Shrinkage	ASTM D-531-90	5.0×10^{-4} in/in
Hardness (Shore D)	ASTM D-2240-91	80

Above typical values based on 7 days cure @ 75 °F

Shelf Life: 18 months in original unopened container under proper storage conditions. Store dry between 40° - 90°F (5° - 32°C).

Packaging: Sikafloor 107, 203 and 215 Resin and Hardener components are available in pre-proportioned 6-US gallon, 15-US gallon, and 165-US gallon kits. Sikafloor 215 Satin Resin and Hardener components are available in pre-proportioned 8-US gallon, and 20-US gallon kits. Ver 11 X 5 Aggregate White and Black are packaged in 42 lb., bags. Trowel Grade Quartz is packaged in 50 lb. bags



System Coverage	<p>Primer: Sikafloor 107: 160-320 sq. ft./mixed gallon at 5 - 10 mils wet film thickness.</p> <p>Verrazzo Mortar: The below mix design will yield 20 sq.ft. (1.85m²)</p> <p>Sikafloor 215 R (pigmented) 64oz. (1.89 Liters)</p> <p>Sikafloor 215 H 32oz. (.95 Liters)</p> <p>Ver11X5 White 42 lbs. (1 bag)</p> <p>Trowel Grade Quartz 5 lbs. (2 qts.)</p> <p>Refer to mixing section for instructions on pigmenting Sikafloor 215 Part "R" for Verrazzo Mortar.</p> <p>First Grout Coat: Sikafloor 203: 80-100 sq.ft./mixed gal.</p> <p>Second Grout Coat: Sikafloor 203: 120-175 sq.ft./mixed gal.</p> <p>Top Coat: Sikafloor 215 Clear Satin: 400 sq.ft./mixed gal.</p>
Cure Mechanism	<p>Primer: Sikafloor 107: At 75°F (24°C), the primed area should be ready for foot traffic within 6-8 hours.</p> <p>Verrazzo Mortar: Sikafloor 215: At 75°F (24°C), the body coat should be ready for foot traffic within 12-16 hours.</p> <p>Grout Coat: Sikafloor 203: At 75°F (24 C), the grout coat should be ready for foot traffic within 12 hours.</p> <p>Top Coat: Sikafloor 215 Clear Satin: At 75°F (24°C), allow 12-14 hours for foot traffic and 24 hours for light traffic. For heavy traffic and/or chemical spillages allow 72 hours.</p>
Mixing	<p>Primer: Sikafloor 107: (3-gallon units) Carefully empty the contents of the Part "H" Hardener entirely into the can of Part "R" Resin. The Part "R" container is oversized to allow for easy mixing. Bulk Kits: Measure the correct volume of Part "R" and Part "H" into a clean pail. Mix with a low speed jiffy mixer (300-450 rpm), until completely blended. This will take about 2 to 3 minutes. Be careful not to introduce any air bubbles while mixing. Make sure the contents are completely mixed to avoid any weak or partially cured spots in coating. During the mixing operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing. Mix only that quantity that can be used within its pot life. Since this product does not need any induction time, it can be used immediately after mixing.</p> <p>Verrazzo Mortar: Add one (1) pint of the appropriate Sikafloor Epoxy Color Additive to five (5) gallons of Sikafloor 215 Part "R". Measure 64 ounces of pigmented Sikafloor 215 Part "R" and 32 ounces Sikafloor 215 Part "H" by volume. Mix with a low speed drill and Jiffy mixer (300-450 rpm) for two minutes until uniform before adding aggregate. Add (1) bag of Ver11X5 White aggregate and slowly add in 2.5 lbs. of trowel grade quartz into a gal. bucket mixer or mortar mixer to ensure proper dispersal. Mix for minimum 1 minute or until aggregate is blended.</p> <p>Grout Coat: Sikafloor 203: (3-gallon units) Carefully empty the contents of the Part "H" Hardener entirely into the can of Part "R" Resin. The Part "R" container is oversized to allow for easy mixing. Bulk Kits: Measure the correct volume of Part "R" and Part "H" into a clean pail. Mix with a low speed jiffy mixer (300-450 rpm), until completely blended. This will take about 2 to 3 minutes. Be careful not to introduce any air bubbles while mixing. Make sure the contents are completely mixed to avoid any weak or partially cured spots in coating. During the mixing operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing.</p> <p>Top Coat: Sikafloor 215 Clear Satin: Premix the Sikafloor 215 Clear Satin Resin and Sikafloor 215 Clear Satin Hardener separately using a low speed jiffy mixer (300-450 rpm). Mix for two minutes and until uniform, exercising caution not to introduce air into the material. Add 3 parts Sikafloor 215 Clear Satin Resin and 1 part Sikafloor 215 Clear Satin Hardener by volume. Mix with a low speed jiffy mixer (300-450 rpm) for two minutes and until uniform.</p>
Application	<p>Refer to Sikafloor 107 data sheet for primer application.</p> <p>Verrazzo Mortar: Place mixed Verrazzo mortar using a screed box, gauge rake, or steel trowel. Place as evenly as possible. Using a power trowel (with plastic blades) or a steel trowel by hand compact the mortar. Do not over trowel and do not finish the last 3-4 inches of the placed mortar path, as this will make the transition of the next pass of mortar more difficult to finish. Power troweling is highly recommended to provide maximum density. Use floor lights to examine finished work closely to assure complete closing and to identify any trowel marks or imperfections. No holes or tear marks should be visible. After cure scrape with the edge of a steel trowel any high rough spots and sweep and vacuum the surface. Verrazzo Grout Coats; (Recommended 2 grout coats to satisfy Verrazzo mortar)</p> <p>Grout Coat: Sikafloor 203: This product should be applied by first pouring a bead of material in the form of a ribbon on the cured Verrazzo Mortar. Using a flat squeegee, or spring steel trowel, spread the Sikafloor 203 material at a rate of approximately (First Grout Coat) 80-100 sq. ft. per gallon (Second Grout Coat) 120-175 sq.ft. per gallon. Apply as evenly as possible, working from left to right, and then back. Do not back roll. Light sanding may be required between coats, followed by vacuuming. Verrazzo Mortar should be fully grouted prior to the application of the top coat.</p> <p>Top Coat: Sikafloor 215 Clear Satin: This product should be applied by first pouring a bead of material in the form of a ribbon on the cured grout coat. Using a flat squeegee, or spring steel trowel, spread the poured material at a rate of approximately 400 sq.ft./mixed gal. Back roll using a 1/4"-3/8" solvent resistant cover, apply evenly to obtain a uniform texture.</p>

Limitations

- Minimum/Maximum substrate temperature: 60°F/85°F (15.5°C/30°C).
- Maximum relative humidity: 85%.
- Substrate temperature must be 5°F (3°C) above measured dew point.
- Conduct quantitative anhydrous calcium chloride testing in accordance with ASTM-F1869. Maximum acceptable test result is 5 pounds per 1,000 ft² per 24 hours. Determine the surface moisture content by using an impedance moisture meter designed for use on concrete as detailed in ASTM E-1907. Acceptable test results shall be 4% by mass or less. If over, use Sikafloor EpoCem 81/82.
- Freshly applied Sikafloor 215 Satin should be protected from dampness, condensation and water for at least 24 hours.
- Will discolor over time when exposed to sunlight (UV) and under certain artificial lighting conditions. UV resistant, light stable topcoats are available where ultimate color/clarity retention is required.
- This product is not designed for exterior use, immersion, or any use where moisture can reach the underside of the coating.
- Do not thin this product. Addition of thinners will slow down the cure and reduce the ultimate properties of this product.

Additional Info

Sikafloor System Sheets describe a series of Sikafloor products installed in progression. For specific information on the individual products mentioned, including, Mixing, Application, Chemical Warnings, First Aid, Handling & Storage, and Clean Up, PLEASE REFER TO THE INDIVIDUAL PRODUCT'S TECHNICAL DATA SHEET, available at www.sikafloorusa.com. System sheets are updated periodically. To ensure the most current version is being used, visit Technical Resources on www.sikafloorusa.com. Proper material application is the responsibility of the user. Site visits made by Sika personnel are for making technical recommendations only and not for supervising or providing quality control. Before applying for protection against specific chemical environments, consult Chemical Resistance Guide or Sika Technical Service.

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