BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-282 Terrazzo

Low VOC, Low Odor, Pigmented Epoxy Resin Binder for Thin-Set Terrazzo Floor Systems

PRODUCT DESCRIPTION

Sikafloor®-282 Terrazzo is a two component, solid color, low VOC, low odor, thin-set epoxy resin binder, available in an unlimited color selection. Vibrant epoxy matrix colors can be combined in varying percentages with fine and or coarse mineral aggregates (marble or granite), colored or recycled glass, mirror particles, plastic chips and non-corrosive metal fragments to produce limitless custom design options.

Sikafloor®-282 Terrazzo is an extremely durable seamless finish that has excellent resistance to abrasion and common chemicals. The finished surface can be topcoated with Sikafloor® 304 W NA, Sikafloor® 340, or Sikafloor® 315 for added chemical resistance. please refer to separate product Data Sheet.

USES

Sikafloor®-282 Terrazzo may only be used by experienced professionals.

Sikafloor®-282 Terrazzo is the ideal choice to provide extreme durability and ease of maintenance in heavy traffic commercial and institutional areas such as:

- Hospitals
- Pharmaceutical research centers
- Schools
- Banks
- Airport terminals
- Convention centers

CHARACTERISTICS / ADVANTAGES

- Unmatched design versatility with custom capabilities
- Thin set for easy jointing with adjacent floor finishes
- Lightweight to reduce loading on floors
- Seamless, waterproof, easy to clean and maintain
- Exceptional abrasion resistance and durability
- Unlimited colors, no minimum required
- Very low life cycle costs compared to other floor finishes

PRODUCT INFORMATION

Chemical Base	Contact Sika Technical Service for specific information	
Packaging	Component A	5 US gallon (18.92 L) fill in 5 gallon pail (3 units needed)
	Component B	5 US gallon (18.92 L) fill in 5 gallon pail
	Components A+B	20 US gallon (75.7 L) unit
	Component A	50 US gallon (189 L) (3 units needed)
	Component B	50 US gallon (189 L)
	Components A+B	200 US gallon (757 L)
Appearance / Color	White or Neutral Base	
Shelf Life	24 months in original, unopened containers	
Storage Conditions	Store and transport dry between 41°F and 89°F (5–32°C). Condition product between 65°F and 80°F (18–26 °C) before using at 73 °F (23 °C) and 50 % R.H.	
Volatile organic compound (VOC) content	1 g/l	

TECHNICAL INFORMATION

Shore D Hardness	83 - 85	ASTM D2240 at 73 °F (23 °C) and 50 % R.H
Abrasion Resistance	CS-17/1000 cycles/1,000g ~ 0.19 g	ASTM D4060 at 73 °F (23 °C) and 50 % R.H
Compressive Strength	> 10,000 psi (68.94 MPa)	ASTM C579 at 73 °F (23 °C) and 50 % R.H
Flexural Strength	1,504,767 psi (10,375 MPa) 28 days	ASTM C580 at 73 °F (23 °C) and 50 % R.H
Tensile Strength	4,530 psi (31.2 MPa) 28 days	ASTM D638 at 73 °F (23 °C) and 50 % R.H
Tensile Adhesion Strength	> 290 psi (2 MPa) substrate failure 100% concrete	ASTM D7234 at 73 °F (23 °C) and 50 % R.H
Indentation	< 1 %	Mil D31134 at 73 °F (23 °C) and 50 % R.H
Thermal Compatibility	~ 2 x 10e-5 mm/mm/°C (11.1 X 10e-6 in/in/°F)	ASTM D696 at 73 °F (23 °C) and 50 % R.H
Water Absorption	~ 0.037 %	ASTM C413 at 73 °F (23 °C) and 50 % R.H

APPLICATION INFORMATION

Mixing Ratio	3:1 by volume
Coverage	Approximate (12 ft²/US gal.) 1/4-inch (6.3mm) 0.2 m²/L (8 ft²/US gal.) at 3/8 in. (9 mm) thick, when filled as recommended
Pot Life	250 g (8.8 oz) mass, 50 min (unfilled)
Cure Time	Temperature: 70°F (21°C) — Time: 18–24 hours Drying times will vary according to air and substrate temperature and humidity.

APPLICATION INSTRUCTIONS

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 removed to achieve a level surface prior to the application.

Concrete should be cleaned and prepared to achieve a laitance-free and contaminant-free, open textured surface by shot blasting or equivalent mechanical means (CSP-3 to CSP-4 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/ coating and the 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.
The “shotblast” pattern may show through the last coat, known as “tracking”. The compressive strength of the concrete substrate should be at least 3626 psi (25 MPa) with a minimum pull off strength of 218 psi (1.5 MPa) in tension at the time of application.
For other substrates, please contact Sikafloor Technical Services.

Priming
Sikafloor®-282 Terrazzo is formulated to be resin rich, priming of substrates is not usually necessary under typical circumstances. However, due to variations in concrete quality, surface conditions, surface preparation and ambient conditions, reference testareas are recommended to determine whether priming is required.

MIXING

Mixing Ratio - 3 : 1 by volume.
For bulk packaging, when not mixing full units, each component must be pre-mixed separately to ensure product uniformity. Premix each Component separately. Empty Component B (Hardener) in the correct mix ratio into Component A (Resin).

Mix the combined components for at least 3 minutes using a low speed drill (300–450 rpm) and Exomixer or Jiffy type paddle suited to the volume of the mixing container to minimize entrapped air. 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 the coating. During the mixing operation, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing. Add aggregate blend and continue to mix until completely blended, 2 to 3 minutes.

APPLICATION

Pour Sikafloor®-282 Terrazzo onto the floor, immediately spread and compact the mortar to the desired thickness using a 3 in. (75 mm) wide steel trowel. Take care to spread newly mixed materials across the transition of previous applied mixes before the surface begins to set. Allow the applied terrazzo to cure for 18 hours at 73 °F (23 °C) before initiating the grinding operation.

Once sufficiently set and grinding operations are complete, Sikafloor®-282 Terrazzo can be sealed with Sikafloor® 304 W NA, Sikafloor 340 aliphatic urethane, or Sikafloor 315 for added chemical resistance. (please refer to separate Product Data Sheet).

The Sikafloor®-282 Terrazzo mix design provided below is a starting point that requires further refinement. It is the responsibility of the terrazzo applicator to conduct additional project specific mix design mock-ups, to finalize adjustments to the mix to achieve an acceptable final appearance, establish production rates, predict pinhole frequency and finalize aggregate and epoxy consumption.

- Sikafloor 282 Terrazzo binder - 4 US gal. (15.14 L)
- Marble Dust - 4.4-19.8 lb. (2–9 kg)
- Marble Chips - blended (#0 & #1) 100-120 lb. (45–54 kg)

LIMITATIONS

Notes on Limitations:
Prior to application, measure and confirm Substrate Moisture Content, Ambient Relative Humidity, Ambient and Surface Temperature and Dew Point. During installation, confirm and record above values at least once every 3 hours, or more frequently whenever conditions change (e.g. Ambient Temperature rise/fall, Relative Humidity increase/decrease, etc.).

Substrate Moisture Content: Moisture content of concrete substrate must be ≤ 4 % by mass (pbw – part by weight) as measured with a Tramex® CME/CMExpert type concrete moisture meter on mechanically prepared surface according to this product data sheet (preparation to CSP-3 to CSP-4 as per ICRI guidelines). Do not apply to concrete substrate with moisture levels > 4 % mass (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter. If moisture content of concrete substrate is > 4 % by mass (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter, use Sikafloor® 1610 or Sikafloor® 22NA or 24NA PurCem. When relative humidity tests for concrete substrate are conducted per ASTM F2170 for project specific requirements, values must be ≤ 85 %. If values are > 85 % according to ASTM F2170 use Sikafloor® 1610 or Sikafloor® 22NA PurCem.
ASTM F2170 testing is not a substitute for measuring substrate moisture content. Use aTramex® CME/CMExpert type concrete moisture meter as described above.

Material Temperature: Precondition material for at least 24 hours between 65 °F and 75 °F (18–24 °C)
Ambient Temperature: Minimum/Maximum 50/85 ˚F (10/30 ˚C)

Substrate Temperature: Minimum/Maximum 50/85 ˚F (10/30 ˚C). Substrate temperature must be at least 5 ˚F (3 ˚C) above measured Dew Point. Mixing and Application must adhere to Material, Ambient and Substrate temperatures listed above or a decrease in product workability and slower cure rates will occur.

Relative Ambient Humidity: Minumum ambient humidity 30 %, Maximum ambient humidity 75 % (during application and curing)
Note: Low Relative Ambient Humidity may result in slower cure.

Dew Point: Beware of condensation!
The substrate must be at least 5 ˚F (3 ˚C) above the Dew Point to reduce the risk of condensation, which may lead to adhesion failure or “blushing” on the floor finish. Be aware that the substrate temperature may be lower than the ambient temperature.

- Do not apply while ambient and substrate temperatures are rising, as pinholes may occur.
- Freshly applied material should be protected from dampness, condensation and water for at least 72 h.
- Will discolor over time when exposed to sunlight (UV) and under certain artificial lighting conditions. Use of clear UV resistant top coat may not prevent discoloration of underlying coatings
- Do not apply Sikafloor® to concrete substrate containing aggregates susceptible to ASR (Alkali Silica Reaction) due to risk of natural alkali redistribution below the Sikafloor® product after application. If concrete substrate has or is suspected to have ASR (Alkali Silica Reaction) present, do not proceed. Consult with design professional prior to use.
- Any aggregate used with Sikafloor systems must be non-reactive and oven-dried.
- This product is not designed for negative side waterproofing.
- Typically not recommended for exterior slabs on grade where freeze/thaw conditions may exist
- Use of unvented heaters and certain heat sources may result in defects (e.g. blushing, whitening, debonding, etc.). Beware of air flow and changes in air flow. Introduction of dust, debris, and particles, etc. may result in surface imperfections and other defects.
- For professional use only by experienced applicators.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **FOR PROFESSIONAL USE ONLY**

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or 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 product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
Phone: +1-800-933-7452
Fax: +1-201-933-6225
usa.sika.com

Sika Mexicana S.A. de C.V.
Carretera Libre Celaya Km. 8.5
Fracc. Industrial Balvanera
Corregidora, Queretaro
C.P. 76920
Phone: 52 442 2385800
Fax: 52 442 2250537