

PRODUCT DATA SHEET

Sikagard®-664

Versatile Epoxy for High Performance Protective Coatings

PRODUCT DESCRIPTION

Sikagard®-664 is a pigmented, two part low viscosity, self-priming, epoxy coating/binder used for smooth and textured coatings and/or broadcast overlays.

USES

Roller coat and self-leveling slurry for concrete and cement screeds with normal up to medium heavy wear (e.g. storage, hallways, corridors and assembly halls, maintenance workshops, garages and loading ramps), or as a seal coat for broadcast systems. When used as a primer, Sikagard®-664 can be considered when $\leq 4\%$ moisture content by mass (pbw – part by weight) is measured on the concrete substrate with a Tramex® CME/CMExpert type concrete moisture meter.

CHARACTERISTICS / ADVANTAGES

- Good chemical and mechanical resistance.
- Easily applied with brush, roller or squeegee.
- Glossy aesthetic finish.
- Slip resistant surface possible.
- Durable, impermeable and seamless.
- Solvent-free, neutral odor.
- Low mixed viscosity.

PRODUCT INFORMATION

Packaging	Component A: 3.0 US gal. (11.4 L); Component B: 1.5 US gal. (5.7 L) Components A+B: 4.5 US gal. (17 L) (Ready to mix unit).
Appearance / Color	Gray, Red & Tan
Shelf Life	2 years in unopened container.
Storage Conditions	Store dry between 40–90 °F (4–32 °C). Precondition material for at least 24 hours between 65 °F and 75 °F (18–24 °C).
Volatile organic compound (VOC) content	< 30 g/l (ASTM D-2369)

TECHNICAL INFORMATION

Shore D Hardness	76 (7 days)	(ASTM D-2240) 73 °F (23 °C) 50 % R.H.
Compressive Strength	7,250 psi (50 N/mm ²) (28 days days)	(ASTM C-579) 73 °F (23 °C) 50 % R.H.
Flexural Strength	2,900 psi (20 N/mm ²) (28 days days)	(ASTM C-580) 73 °F (23 °C) 50 % R.H.
Tensile Adhesion Strength	> 400 psi (2.7 N/mm ²) (100 % concrete fail)	(ASTM D-4541) 73 °F (23 °C) 50 % R.H.
Chemical Resistance	Please consult Sika Technical Service.	
Coefficient of Friction	0.6	(ANSI 326.3) 73°F (23°C) 50% R.H

APPLICATION INFORMATION

Coverage **Smooth Finish Coating:** Prime coat: 160 - 200 ft²/US gal (3.9–4.9 m²/L) at 8–10 mils (0.20–0.25 mm) wet film thickness (w.f.t.). Wear coat: 105 –135 ft²/US gal (2.6–3.3 m²/L) at 12–15 mils (0.30–0.38 mm) wet film thickness (w.f.t.).

Pot Life	Temperature	Time
	50 °F (10 °C)	~ 50 minutes
	68 °F (20 °C)	~ 25 minutes
	86 °F (30 °C)	~ 15 minutes

Cure Time	Temperature	Foot traffic	Light traffic	Full cure
	50 °F (10 °C)	~ 24 hours	~ 3 days	~ 10 days
	68 °F (20 °C)	~ 12 hours	~ 2 days	~ 7 days
	86 °F (30 °C)	~ 8 hours	~ 1 days	~ 5 days

Waiting/Recoat Times

Before applying second coat of Sikagard®-664 on Sikagard®-664 allow:

Temperature	Minimum	Maximum
50 °F (10 °C)	24 hours	3 days
68 °F (20 °C)	8 hours	2 days
86 °F (30 °C)	6 hours	1 day

Before applying Sikagard® Epoxy or Polyurethane on Sikagard® 616 allow:

Temperature	Minimum	Maximum
50 °F (10 °C)	24 hours	3 days
68 °F (20 °C)	8 hours	2 days
68 °F (20 °C)	6 hours	1 day

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.

LIMITATIONS

tes 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 $\leq 4\%$ 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 Sikalastic® MT Primer or Sikafloor® 81 EpoCem. When relative humidity tests for concrete substrate are conducted per ASTM F2170 for project specific requirements, values must be $\leq 85\%$. If values are $> 85\%$ according to ASTM F2170 use Sikalastic® MT Primer or Sikafloor® 81 EpoCem. ASTM F2170 testing is not a substitute for measuring substrate moisture content with a Tramex® 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 attempted at Material, Ambient and/or Substrate Temperature conditions less than 65 °F (18 °C) will result in a decrease in product workability and slower cure rates.

Ambient Relative Humidity: Maximum ambient humidity 85 % (during application and curing).

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.

Mixing: Do not hand mix Sikagard® materials. Mechanically mix only. Do not thin this product. Addition of thinners (e.g. water, solvent, etc.) will slow cure and reduce ultimate properties of this product. Use of thinners will void any applicable Sika warranty. Improper mixing procedure or incorrect mixing ratio may result in moisture sensitivity, whitening, slow cure,

soft spots, and other defects.

Application: If used as a primer apply material to the prepared substrate using a squeegee and back roll to provide uniform coverage. Ensure that the substrate is pore-free and pinhole free and provides uniform and complete coverage over the entire substrate. If necessary, apply an additional coat to ensure the substrate is pore-free and pinhole-free and provides uniform and complete coverage over the entire substrate. Do not apply while ambient and substrate temperatures are rising, as pinholes may occur. Ensure there is no vapor drive at the time of application. Refer to ASTM D4263, may be used for a visual indication of vapor drive.

- 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 Sikagard® to concrete substrate containing aggregates susceptible to ASR (Alkali Silica Reaction) due to risk of natural alkali redistribution below the Sikagard® 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 Sikagard® 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.

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.

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 dressed off 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 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. The “shotblast” pattern may show through the last coat, known as “tracking”. The compressive strength of the concrete substrate should be at least 3,500 psi (24 MPa) at 28 days and at least 215 psi (1.5 MPa) in tension at the time of application. For other substrates, please contact Sika Technical Services.

Primer or Smooth Finish Coating: Priming the concrete substrate is required. Prime with Sikagard® 616 or Sikalastic® MT Primer. Allow the primer to cure (varies with temperature and humidity) until tack free before applying subsequent coats. Ensure that the primer is pore-free, pinhole-free and provides uniform and complete coverage over the entire substrate. Sikagard®-664 may be used as primer on concrete substrates for Sikagard® coating systems subjected to light traffic use.

MIXING

Mixing Ratio - 2 : 1 by volume.

Primer and Wear Coat: 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.

Self-leveling Slurry: Premix each component separately. Empty Component B (Hardener) in the correct mix ratio into Component A (Resin). Mix the combined components for at least 1 minute 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. Add Sikadur® 504 type filler and mix for additional 2 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 the slurry. 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.

Do not mix more material than can be applied within the working time limits (i.e. pot life) at the actual field temperature.

APPLICATION

As Primer: Apply primer by squeegee at the rate of 160–200 ft²/US gal (3.4–4.9 m²/L) at 8–10 mils (0.20–0.25 mm) wet film thickness (w.f.t.) and back roll with pressure after 15 minutes. Coverage will vary depending on the porosity of the prepared floor. Product has a limited Pot Life, see Typical Data. Do not apply by dipping roller into mixing container. Pour a bead of product in the form of a ribbon on the surface to be coated, then spread with squeegee and back roll. Ensure that the coating is pore-free and pinhole-free and provides uniform and complete coverage over the entire concrete substrate. If necessary, apply an additional coat to ensure the coating is pore-free and pinhole-free and provides uniform and complete coverage over the entire concrete substrate.

As Wear and Sealer Coat: Sikagard®-664 is applied with a 40 mil (1 mm) notched squeegee over a smooth surface and a flat squeegee over a rough or broadcast quartz surface. Back rolling is typically done with an 18 inch (455 mm) wide 3/8 inch (10 mm) short nap, solvent-resistant roller cover. Back roll the Sikagard®-664 only to level the squeegee applied material. Over-rolling and late back rolling may cause bubbling and leave roller marks.

Smooth Finish Self-Leveling Slurry: Pour a bead of product to the surface to be coated, then spread with a notched squeegee or pin rake to the desired thickness. Roll immediately (within max. 10 minutes of application) in two directions with a spiked roller to ensure even thickness and the removal of entrapped air. To obtain a higher aesthetic finish, spike roll in two directions at a 90 degree angle by passing only once in each direction. The product has a limited Pot Life, see Typical Data.

OTHER RESTRICTIONS

See Legal Disclaimer.

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.

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Product Data Sheet

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