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# PRODUCT DATA SHEET Sikafloor<sup>®</sup>-700

### **Epoxy Novolac Chemical Resistant Coating**

#### DESCRIPTION

A two component, high solids, novolac epoxy with exceptional chemical resistance. Sikafloor®-700 can be installed as a stand-alone coating. Its versatility allows Sikafloor®-700 to be applied as a topcoat for many of the Sika flooring systems or used as a binder in a slurry/broadcast system. Sikafloor®-700 can be field pigmented using Sikafloor® - Epoxy Color Additive-N to create a variety of colors. May be used in conjunction with fiberglass reinforcement and glass flake additive for additional strength and chemical resistance.

#### USES

Sikafloor<sup>®</sup>-700 may only be used by experienced professionals.

Designed for use as a medium to heavy coat epoxy resurfacer in areas subjected to chemical spillages. Ideal for use in chemical processing, chemical storage areas, and battery charge stations.

### **CHARACTERISTICS / ADVANTAGES**

- Low Odor
- Very good chemical resistance
- Wide range of colors with Epoxy Color Additive-N

Packaging	<ul> <li>Component A: 2.0 US gal. (7.6 L)</li> <li>Component B: 1 US gal. (3.8 L)</li> <li>Component A+B: 3.0 US gal. (11.3 L) (Ready to mix unit)</li> </ul>					
Shelf life	2 years in original unopened container under proper storage conditions.					
Storage conditions	Store dry between 40° - 90°F (4°- 32°C).					
Volatile organic compound (VOC) con- tent	62 g/l (A+B Combined).					
Shore D Hardness	Propertie Tested at 73°F Shore D Hardness	79 - 83				
Abrasion resistance	Propertie Tested at 73°F Abrasion Resistance	(23°C) and 50 % R.H ASTM D-4060	107 mg loss			
Compressive strength	Propertie Tested at 73°F Compressive Strength	(23°C) and 50 % R.H ASTM D-695	9, 400 psi (28 days)			
Tensile strength in flexure	Propertie Tested at 73°F Flexural Strength	(23°C) and 50 % R.H ASTM D-790	9,862.5 psi (68 MPa)			

## **PRODUCT INFORMATION**

Product Data Sheet Sikafloor®-700 May 2023, Version 01.01 020812040030000020

Tensile strength	Propertie Tested	Propertie Tested at 73°F (23°C) and 50 % R.H					
	Tensile Strength	ASTM D-	638	6,164 psi (7 Days)			
Tensile strain at break	Propertie Tested	at 73°F (23°C) an	d 50 % R.H				
	Elongation	ASTM D-	638	12%			
Resistance to impact	Propertie Tested	at 73°F (23°C) an	d 50 % R.H				
·	Impact Resistanc	e ASTM D-	2794	160 in-lbs			
Chemical resistance	Propertie Tested	at 73°F (23°C) an	d 50 % R.H				
	Chemical Resista	<b>Chemical Resistance</b> Please consult Sikafloor Technical					
	. <u></u>	Services.					
Water absorption	Propertie Tested	at 73°F (23°C) an	d 50 % R.H				
	Water absorption	n <u>ASTM C-</u>	413	0.16 % (2 hours boiling)			
Gloss level	Propertie Tested	Propertie Tested at 73°F (23°C) and 50 % R.H					
	Gloss @ 60 degre	es ASTM D-	523	100			
Consumption	Approximately 8	0 - 130 ft2/ US ga	l (1.9 - 3.2 m2 /	L) at 12 to 20 mils (0.3 –			
·	0.5 mm) wet film	0.5 mm) wet film thickness (w.f.t) or 240 - 390 ft2 /US gal (5.9 - 9.6 m2 / L)					
	per 3 gallon unit	per 3 gallon unit over primed, relatively smooth, dense concrete sur-					
	Taces. (The above figure	Taces. (The above figures do not allow for surface profile or waste)					
Material temperature	Precondition mat	Precondition material for at least 24 hours between 65° to 75°F (18° to					
	24°C)						
Relative air humidity	Maximum ambie	iviaximum ampient numidity 85% (during application and curing)					
Dew point	Beware of conde	Beware of condensation! The substrate must be at least $5^{\circ}E(3^{\circ}C)$ above the Dew Point to reduce the					
	risk of condensat	risk of condensation, which may lead to adhesion failure or "blushing" on					
	the floor finish. Be aware that the substrate temperature may be						
Substrate moisture content	Moisture conten	Moisture content of concrete substrate must be $\leq$ 4% by mass (pbw –					
	part by weight) a	part by weight) as measured with a Tramex <sup>®</sup> CME/CMExpert type concrete					
	as per ICRI guide	as per ICRI guidelines). Do not apply to concrete substrate with moisture					
	levels > 4% mass	levels > 4% mass (pbw – part by weight) as measured with Tramex®					
	CME/CMExpert t	CME/CMExpert type concrete moisture meter. If moisture content of con-					
	crete substrate is	Crete substrate is > 4% by mass (pbw part by weight) as measured with Tramey® CME/CMExpert type concrete moisture meter, use Sikafloor 1610.					
	or Sikafloor PurC	or Sikafloor PurCem <sup>®</sup> 22NA or 24NA.					
Curing time	Ambient & Sub-	Foot traffic	Light traffic	: Full cure			
	strate Temperat-		•				
	ure						
	+50°F (10°C)	$\sim 30 \text{ hours}$	$\sim 3 \text{ days}$	~ <u>10 days</u>			
	+86°F (30°C)	~ 10 hours	~ 36 hours	~ 4 days			
Waiting time to oversecting	Before applying a	Pofore applying second cost of Sikafloor® 700 allows					
	Ambient & Subst	Ambient & Substrate Minimum Maximum					
	Temperature						
	+50°F (10°C)	24 hours		36 hours			
	+68°F (20°C)	8 hours		24 hours			
	+86°F (30°C)	6 hours		24 hours			

**Product Data Sheet Sikafloor®-700** May 2023, Version 01.01 020812040030000020



2/4

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# **BASIS OF PRODUCT DATA**

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

### IMPORTANT CONSIDERATIONS

#### 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.).

## ECOLOGY, HEALTH AND SAFETY

For any information regarding safety issues in the use, handling, storage of this product and disposal of waste, users should consult the most current version of the product Safety Data Sheet, which contains physical, ecological, toxicological and other safety-related data, copies of which will be sent to anyone who requests them, or through the page "www. sika. com. mx".

#### SUBSTRATE QUALITY / PRE-TREATMENT

Substrate Temperature: Minimum/Maximum  $50^{\circ}/85^{\circ}F$  ( $10^{\circ}/30^{\circ}C$ ). Substrate temperature must be at least  $5^{\circ}F$  ( $3^{\circ}C$ ) above measured Dew Point.

- 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 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.

Priming for concrete substrate is required. Prime with either Sikafloor 160, Sikafloor 161 or Sikafloor 1610. 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.

**NOTE:** For other substrates, please contact Sikafloor Technical Service.

#### MIXING

Mix Ratio - 2 : 1 by volume.

For bulk packaging, when not mixing full units, each component must be pre-mixed separately to ensure product uniformity.

#### Field Pigmented:

- 1. Make sure all surface preparation is complete and installation equipment is ready before starting the mixing sequence.
- 2. Premix each Component separately, the appropriate Sikafloor Epoxy Color Additive-N is added to Component A at a rate of 1 quart per 3.0 mixed gallons (i.e. Components A+B).
- 3. Mix Component A and Sikafloor Epoxy Color Additive-N for 2 minutes or until a uniform color is achieved with a low speed drill (300 - 450 rpm) and Exomixer or Jiffy type paddle suited to the volume. Empty Component B (Hardener) in the correct mix ratio to Component A (Resin) 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 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. Note:

- For added film strength and chemical resistance, C type glass flake with epoxy silane treatment, 5 micron ( $\mu$ m) nominal size may be added at the rate of 15% by weight. 3 gallon mixed unit + 4.4 lbs (2.0 kg) of glass flake.
- Do not mix more material than can be applied within the working time limits (i.e. Pot Life) at the actual field temperature.
- Mixing must adhere to Material, Ambient and Substrate temperatures listed above or a decrease in product workability and slower cure rates will occur.

#### APPLICATION

- Pour a thin approximately 6 12 in. wide bead of Sikafloor 700 in the form of a ribbon on the surface and spread the material at a rate of approximately 130 ft2/ US gal (3.2 m2 / L) with a notched squeegee, flat squeegee, or trowel.
- 2. Apply as evenly as possible, working from left to right, and then back.
- 3. Back rolling is typically done with an 18 inch (454 mm) wide short nap, 3/8-inch (10 mm), solvent-resistant roller cover.
- 4. Back roll the Sikafloor 700 only to level the squeegee applied material.

Note:

- Over-rolling and late back rolling may cause bubbling and leave roller marks.
- Application must adhere to Material, Ambient and Substrate temperatures listed above or a decrease in product workability and slower cure rates will 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.
- 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

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3/4

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.
- Use of unvented propane or natural gas 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.

#### LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

### LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

SIKA NORTHERN GULF Bahrain / Kuwait Tel: +973 177 38188 info@bh.sika.com

gcc.sika.com



All products are supplied under a management system certified to conform to the requirements is LLC of the quality, anricommental and occupational health & safety standards (SD 9000, ISO 14001 and ISO 45001.

#### Product Data Sheet Sikafloor®-700 May 2023, Version 01.01 020812040030000020

SIKA SOUTHERN GULF UAE / Oman / SIC Tel: +971 4 439 8200 info@ae.sika.com gcc.sika.com



#### Sika Saudi Arabia

Riyadh / Jeddah / Dammam Tel. +966 11 217 6532 info@sa.sika.com gcc.sika.com

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