BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-161

VERSATILE EPOXY RESIN FOR PRIMING

PRODUCT DESCRIPTION

Sikafloor®-161 is a two part, epoxy resin use for priming.

USES

Sikafloor®-161 may only be used by experienced professionals.

Sikafloor®-161 is designed as a primer for Sikafloor epoxy and urethane coatings, as well as for broadcast and troweled systems. When used as a primer Sikafloor®-161 can be considered where ≤4 % moisture content by mass (pbw – part by weight) is measured on concrete substrate with Tramex® CME/CMExpert type concrete moisture meter.

CHARACTERISTICS / ADVANTAGES

- Low VOC
- Excellent penetration and adhesion
- Easy application
- Short recoat times
- Multi-purpose use
- 100 % solids as supplied

PRODUCT INFORMATION

Packaging	Component A: 3.0 US gal. (11.4 L)	Component A: 50 US gal. (189 L) (2 units needed)
	Component B: 1.5 US gal. (5.7 L)	Component B: 50 US gal. (189 L)
	Components A+B: 4.5 US gal. (17 L)	Components A+B: 150 US gal. (568 L)
	(Ready to mix unit)	
Appearance / Color	Gray transparent after mixing	
Shelf Life	2 years in original unopened container under proper storage	
Storage Conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between 41 °F (5 °C) and 86 °F (30 °C).	
Solid content by volume	~100 %	
Volatile organic compound (VOC) content	62 g/L (A+B Combined)	

TECHNICAL INFORMATION

Shore D Hardness	82	ASTM D2240 at 73°F (23°C) and 50% R.H
Abrasion Resistance	CS-17/1,000 cycles/1,000 g -0.110g H-22/1,000 cycles/1,000 g -90 mg	ASTM D4060 at 73°F (23°C) and 50% R.H
Compressive Strength	7,426 psi (51.2 MPa)	ASTM C695 at 73°F (23°C) and 50% R.H
Flexural Strength	*Flexural Strength* 8,558 psi (59.0 MPa)	ASTM D790 at 73°F (23°C) and 50% R.H
	Flexural Modulus of Elasticity 8.34 x 10^5 psi (5,750 MPa)	ASTM D790 at 73°F (23°C) and 50% R.H
Tensile Strength	4,902 psi (33.8 MPa)	ASTM C638 at 73°F (23°C) and 50% R.H
Tensile Adhesion Strength	> 400 psi (2.7 MPa) (100 % concrete failure)	ASTM D454 at 73°F (23°C) and 50% R.H
Impact Strength	0.26 ft/lb (0.35 j)	ASTM D2794 at 73°F (23°C) and 50% R.H
Chemical Resistance	Please consult Sikafloor Technical Services.	
Thermal Resistance	9.0 g/m² (24 hours)	ASTM E96 at 73°F (23°C) and 50% R.H
Water Absorption	0.14 g/h - m²	ASTM D570 at 73°F (23°C) and 50% R.H

APPLICATION INFORMATION

Mixing Ratio

2 : 1 by volume

Coverage

160–266 ft² / US gal (3.9–6.5 m² / L) at 6–10 mils (0.15–0.25 mm) wet film thickness (w.f.t.).

Pot Life

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

Cure Time

Ambient & Substrate 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	~ 4 days

Waiting / Recoat Times

Before applying second coat Sikafloor®-161 on Sikafloor®-161 allow:

Ambient & Substrate temperature	Minimum	Maximum
50 °F (10 °C)	24 hours	36 hours
68 °F (20 °C)	8 hours	24 hours
86 °F (30 °C)	6 hours	18 hours

Before applying Sikafloor Epoxy or Polyurethane on Sikafloor®-161 allow:

Ambient & Substrate temperature	Minimum	Maximum
50 °F (10 °C)	24 hours	72 hours
68 °F (20 °C)	8 hours	48 hours
86 °F (30 °C)	6 hours	24 hours

Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

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

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 PurCem® 22NA or 24NA. 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 a Tramex® CME/CMExpert type concrete moisture meter as described above.

Material Temperature: Precondition material for at least 24 hours between 65 °F to 75 °F (18 °C to 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.

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 Sikafloor 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: Apply the primer 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.
- Not recommended when using a clear system.
- 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.
- 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.

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 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. For other substrates, please contact Sikafloor Technical Services.

MIXING

Mixing Ratio - 2 : 1 by volume.
For bulk packaging, when not mixing full units, each component must be pre-mixed separately to ensure product uniformity.

Primer and Intermediate:
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.

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

APPLICATION

Apply primer by squeegee at the rate of 160–266 ft^2 / US gal (3.4 – 6.5 m^2 / L) at 6–10 mils (0.15–0.25 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.

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.

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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