

Product Data Sheet
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Sikafloor® 161

Sikafloor® 161

Versatile Epoxy Resin for Priming

Description	Sikafloor 161 is a two part, epoxy resin for priming and leveling mortars.
Where to Use	Sikafloor 161 is designed as a primer for Sikafloor epoxy and urethane coatings, as well as for broadcast and troweled systems. When used as 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.
Advantages	<ul style="list-style-type: none"> ■ Low VOC's ■ Excellent penetration and adhesion ■ Easy application ■ Short Recoat Times ■ Multi-purpose use ■ 100% solids as supplied

TYPICAL 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.

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)	Component A: 50 US gal. (189 L) (2 units needed) Component B: 50 US gal. (189 L) Components A+B: 150 US gal. (568 L)								
Color	Gray transparent after mixing.									
Coverage	160 - 200 ft ² / US gal (3.9 – 4.9 m ² / L) at 8 – 10 mils (0.20 – 0.25 mm) wet film thickness (w.f.t.).									
Pot Life	<table border="0"> <tr> <td>Material Temperature</td> <td>Time</td> </tr> <tr> <td>+50°F (10°C)</td> <td>~ 50 minutes</td> </tr> <tr> <td>+68°F (20°C)</td> <td>~ 25 minutes</td> </tr> <tr> <td>+86°F (30°C)</td> <td>~ 15 minutes</td> </tr> </table>	Material Temperature	Time	+50°F (10°C)	~ 50 minutes	+68°F (20°C)	~ 25 minutes	+86°F (30°C)	~ 15 minutes	
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+50°F (10°C)	~ 50 minutes									
+68°F (20°C)	~ 25 minutes									
+86°F (30°C)	~ 15 minutes									
Waiting / Recoat Times	Before applying second coat Sikafloor 161 on Sikafloor 161 allow:									
	Ambient & Substrate 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 Sikafloor Epoxy or Polyurethane on Sikafloor 161 allow:									
	Ambient & Substrate 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								
Cure Times	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	~ 5 days						
Properties Tested at 73°F (23°C) and 50 % R.H:										
Pull-off Strength	ASTM D4541	> 400 psi (2.7 MPa) (100% concrete failure)								
Shore D Hardness (7 days)	ASTM D2240	76								
Solid Content		~ 100% (by volume) / ~ 100% (by weight)								
VOC Content	ASTM D2369	≤ 30 g/L								
Permeability	ASTM E96	9.0 g/m ² (24 hours / +75°F)								
Water Absorption	ASTM D570	0.14 g/h - m ²								
Viscosity	Components A + B mixed (SP2/100)	Approx. 775 cps								
Chemical Resistance	Please consult Sikafloor Technical Services.									
Shelf Life	2 years in original unopened container under proper storage conditions. Store dry between 40°- 90°F (4°- 32°C)									

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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-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

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.

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 81 EpoCem.

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 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° to 75°F (18° 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 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)

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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.
- Freshly applied material should be protected from dampness, condensation and water for at least 72 hrs.
- 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.

Caution

COMPONENT A: WARNING: COMBUSTIBLE, IRRITANT, SENSITIZER. Contains quartz (SiO₂) (CAS:14808-60-7), bisphenol A-(epichlorhydrin) epoxy resin (CAS:25068-38-6), Benzyl alcohol (CAS:100-51-6), bisphenol F-(epichlorhydrin) epoxy resin (CAS:28064-14-4), oxirane, mono[(C12-14-alkyloxy)methyl]derivs (CAS:68609-97-2) and ethanol (CAS:64-17-5). Keep away from heat, sparks, electrical equipment, and open flame. **DO NOT SMOKE.** Use only in well ventilated areas. Causes skin/eye irritation. Harmful if inhaled in high concentrations/swallowed. May cause skin sensitization after prolonged contact. Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. **Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

COMPONENT B: DANGER: FLAMMABLE, CORROSIVE, SENSITIZER. Avoid direct contact. Contains Benzyl alcohol (CAS:100-51-6), Isophoronediamine (CAS:2855-13-2), m-phenylenebis(methylamine) (CAS:1477-55-0), bisphenol A-(epichlorhydrin) epoxy resin (CAS:25068-38-6), ethanol (CAS:64-17-5), Phenol, 4-dodecyl-, branched (CAS:210555-94-5), and 2,4,6-tris(dimethylaminomethyl)phenol (CAS:90-72-2). **Keep away from heat, sparks, sunlight, electrical equipment, flame or other sources of ignition. VAPORS MAY IGNITE AND EXPLODE. DO NOT SMOKE.** Use only in well ventilated areas. Open doors and windows during use. Harmful if inhaled/swallowed. Causes skin/eye/digestive tract burns. May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. May cause allergic skin reaction. Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. **Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal. Strictly follow all usage, handling and storage instructions.**

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.



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First Aid	Eyes – Hold eyelids apart and flush thoroughly with water for 15 minutes. Skin – Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. Inhalation – Remove to fresh air. Ingestion – Do not induce vomiting. Dilute with water. Contact physician. In all cases contact a physician immediately if symptoms persist.
Handling and Storage	<p>COMPONENT A: Keep away from heat, sparks, sunlight, electrical equipment or flame. VAPORS MAY IGNITE AND EXPLODE. DO NOT SMOKE. Open doors and windows during use. Use adequate local and mechanical ventilation. Wear protective equipment (chemically resistant gloves/goggles/clothing) to prevent direct contact with skin and eyes. Use properly fitted NIOSH vapor cartridge respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing after use. Store product in tightly sealed containers in a cool, dry well ventilated area at temperatures between 40° F(+4°C) and 90°F(+32°C) away from ignition sources.</p> <p>Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.</p> <p>COMPONENT B: Avoid direct contact. Keep away from heat, sparks, sunlight, electrical equipment or flame. VAPORS MAY IGNITE AND EXPLODE. DO NOT SMOKE. Open doors and windows during use. Use adequate local and mechanical ventilation. Wear protective equipment (chemically resistant gloves/goggles/clothing) to prevent direct contact with skin and eyes. Use properly fitted NIOSH vapor cartridge respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing after use. Store product in tightly sealed containers in a cool, dry well ventilated area at temperatures between 40° F(+4°C) and 90°F(+32°C) away from ignition sources.</p> <p>Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.</p>
Clean Up	<p>COMPONENT A: In case of spill, eliminate all ignition and heat sources, if safe to do so. Ventilate area. Open doors and windows. Wear chemical resistant gloves/goggles/clothing. In absence of proper ventilation use properly fitted NIOSH respirator. Confine spill, collect using noncombustible absorbent material and place in properly sealed container. Dispose of excess product in accordance with applicable local, state and federal regulations.</p> <p>COMPONENT B: Avoid direct contact. In case of spill, eliminate all ignition and heat sources, if safe to do so. Ventilate area. Open doors and windows. Wear chemical resistant gloves/goggles/clothing. In absence of proper ventilation use properly fitted NIOSH respirator. Uncured material can be removed with approved solvent. Follow solvent manufacturer's instructions for use and warnings. Confine spill, collect using noncombustible absorbent material and place in properly sealed container. Dispose of excess product in accordance with applicable local, state and federal regulations. Cured material can only be removed mechanically.</p>

KEEP CONTAINER TIGHTLY CLOSED • KEEP OUT OF REACH OF CHILDREN • NOT FOR INTERNAL CONSUMPTION • FOR INDUSTRIAL USE ONLY

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LIMITED WARRANTY: 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 shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKASHALL NOT BELIEVABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKASHALL 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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1-800-933-SIKA NATIONWIDE

Regional Information and Sales Centers. For the location of your nearest Sika sales office, contact your regional center.

Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
Phone: 800-933-7452
Fax: 201-933-6225

Sika Canada Inc.
601 Delmar Avenue
Pointe Claire
Quebec H9R 4A9
Phone: 514-697-2610
Fax: 514-694-2792

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

