

PRODUCT DATA SHEET

Sikafloor®-1620

LOW PERM MOISTURE TOLERANT PRIMER

PRODUCT DESCRIPTION

Sikafloor®-1620 is a one coat moisture vapor control clear epoxy primer for superior penetration and adhesion to concrete. Sikafloor®-1620 is specially formulated to treat high moisture concrete floors for Sikafloor® epoxy and urethane coatings, as well as broadcast and troweled systems.

USES

Sikafloor®-1620 may only be used by experienced professionals.

Sikafloor®-1620 should be considered where $\leq 6\%$ (pbw – part by weight) is measured on concrete substrate with Tramex® CME CMExpert type concrete moisture meter or $\leq 96\%$ per ASTM F2170.

CHARACTERISTICS / ADVANTAGES

- Perm rating under 0.1 Perm
- One coat application
- Resistant to moisture vapor transmission
- Ease of application
- Low VOC
- Exceeds ASTM F3010

PRODUCT INFORMATION

Packaging	Component A: 3 US gal. (11.3 L)	Component A: 50 US gal. (189.2 L)
	Component B: 1 US gal. (3.7 L)	Component B: 50 US gal. (189.2 L)
	Components A+B: 4.0 US gal. (15 L)	Components 3A+B: 200 US gal. (757.8 L)
Appearance / Color	Clear	
Shelf Life	2 years in original unopened container under proper storage conditions	
Storage Conditions	Store dry between 40 °F (4 °C) and 90 °F (32 °C)	

TECHNICAL INFORMATION

Shore D Hardness	80 - 85	ASTM D2240 at 73 °F (23 °C) and 50% R.H
Compressive Strength	14,385 psi (99 MPa)	ASTM D695 at 73 °F (23 °C) and 50% R.H
Flexural Strength	12,154 psi (83.8 MPa)	ASTM D790 at 73 °F (23 °C) and 50% R.H
Tensile Strength	4,931 psi (34 MPa)	ASTM D638 at 73 °F (23 °C) and 50% R.H
Tensile Adhesion Strength	>400 psi (2.7 MPa) (100% Concrete failure)	ASTM D7234 at 73 °F (23 °C) and 50% R.H
Permeability to Water Vapor	0.06 perms (15 Mils)	ASTM E-96 at 73 °F (23 °C) and 50% R.H
Water Absorption	0.0029% (24 hr) 0.007% (7 days)	ASTM D570 at 73 °F (23 °C) and 50% R.H

APPLICATION INFORMATION

Mixing Ratio	3 : 1 by volume		
Coverage	105 - 135 ft² / mixed US gal. (2.75 - 3.32 m²/L) at 12 - 15 mils (0.30 - 0.38 mm) wet film thickness (w.f.t.)		
Ambient Air Temperature	Minimum/Maximum 50/85 °F (10/30 °C)		
Substrate Temperature	Minimum/Maximum 50/85 °F (10/30 °C)		
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	Full Cure
	50 °F (10 °C)	36 hours	10 days
	68 °F (20 °C)	18 hours	7 days
	86 °F (30 °C)	8 hours	4 days

Waiting / Recoat Times

Before applying Sikafloor® Epoxy or Polyurethane on Sikafloor®-1620 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)	5 hours	24 hours

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 < 6 % 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 > 6 % mass (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter. If moisture content of concrete substrate is ≥ 6% by mass (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter, use Sikafloor® 22NA or 24NA PurCem®.

When relative humidity tests for concrete substrate are conducted per ASTM F2170, values must be ≤ 96%. If values are > 96%, use Sikafloor® 22NA or 24NA PurCem®.

Material Temperature: Precondition material for at least 24 hours between 65 to 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.

Ambient Relative Humidity: Maximum ambient humidity

85 % (during application and curing)

Dew Point: Beware of condensation!

The substrate and uncured floor 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 surface using a squeegee and back roll to provide uniform coverage. 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.

- 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.
- 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.
- Sikafloor®-1620 must be applied as supplied. Tinting Sikafloor®-1620 may result in loss of moisture tolerance.
- Any aggregate used with Sikafloor® systems must be non-reactive and oven-dried.
- This product is not designed for negative side waterproofing.
- 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.).

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- 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

Concrete surfaces must be clean and sound. Remove all dust, dirt, existing paint films, efflorescence, exudates, laitance, form oils, hydraulic or fuel oils, brake fluid, grease, fungus, mildew, biological residues or any other contaminants which may prohibit a good bond. Prepare the surface by any appropriate mechanical means, in order to achieve a profile equivalent to ICRI - CSP 3-4. The compressive strength of the concrete substrate should be at least 3,625 psi (25 MPa) at 28 days and a minimum of 218 psi (1.5 MPa) in tension at the time of application. Repairs to cementitious substrates, filling of blowholes, leveling of irregularities, etc. should be carried out using an appropriate Sika profiling mortar. Contact Sika Technical Service for a recommendation.

MIXING

Each component must be pre-mixed separately to ensure product uniformity. 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 105 - 135 ft²

/ mixed US gal.(2.75 - 3.32 m²/ L) (at 12–15 mils (0.30 - 0.38 mm) wet film thickness (w.f.t). Back roll with 3/8 inch (10 mm) nap, solvent-resistant roller coverCoverage will vary depending on the porosity of the prepared substrate.

Do not apply by dipping roller into mixing container. Pour a bead of product in the form of a ribbon on the substrate to be coated and 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 primer coat to ensure that 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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