



Department of Environmental Protection

2600 Blair Stone Road ♦ Tallahassee, Florida 32399-2400

DEP Form: 62-762.901(9)

Form Title: Storage Tank Equipment

Registration Form

Effective Date: July 2019

Incorporated in Rule 62-762.851, F.A.C.

Storage Tank System Equipment Registration Form

Fill out completely

General Information

Company Name: Sika Corporation Contact Name: Juan Leon
Company Address: 201 Polito Avenue City, State: Lynhurst, NJ Zip: 07071
E-mail: LEON.JUAN@US.SIKA.COM Contact Number: 256-483-0968
Product Name: SIKAFLOOR PURCEM LINE
Model Number(s): 455923, 455928, 515678, 529378, Product Type: Urethane- cement resin
Rule(s) citation that registration is being requested within Chapter 62-761 (UST), and/or 62-762 (AST), F.A.C.: _____

Write a brief description of equipment registration request including product limitations:

SIKAFLOOR: -19NA is a heavy duty trowel applied cementitious urethane mortar; -22NA is a self-leveling broadcast cementitious urethane slurry; -24NA is a self-leveling thin layer polyurethane/cement slurry for general industrial and commercial use; -29NA is a high strength cementitious urethane coving and detailing mortar; -31NA is a solvent-free, high build, cementitious urethane coating.

Information Checklist (Choose Yes, No, or N/A - Not Applicable):

	Yes	No	N/A
1. Third-party Certification by a Nationally Recognized Testing Laboratory? (Required)	☒	☐	☐
2. Documentation of third-party evaluation that the equipment meets DEP Rules?	☒	☐	☐
3. Documents included about the qualifications of the Nationally Recognized Testing Laboratory?	☒	☐	☐
4. Technical information and drawings included?	☒	☐	☐
5. Installation instructions included?	☒	☐	☐
6. Annual Operability Testing Requirements (Rules 62-761.500, 62-762.501, & 62-762.502 F.A.C.)?	☐	☐	☒
7. Integrity Testing Requirements (Rules 62-761.700, 62-762.701, & 62-762.702, F.A.C.)?	☐	☐	☒
8. Compatible with fuel blends containing >10% ethanol or >20% biodiesel?	☒	☐	☐
9. Has the product been approved or registered in other countries or states? (If so provide list)	☐	☒	☐
10. Any requirements for company-certified installers or trainers?	☐	☒	☐
11. Was this product(s) previously approved or registered by the Department? If yes, EQ- _____	☐	☒	☐
12. Any changes or modifications to the equipment since the last submittal to DEP?	☐	☐	☒

Document Information: Provide supporting documents indicated as "Yes" above including this form via email to Tanknotify@floridadep.gov, or documents can be sent to FDEP, Division of Waste Management, 2600 Blair Stone Road, MS 4560, Tallahassee, FL 32399.

Write a brief description of equipment installation and performance in the U.S.:

19NA is a liquid applied with gage rake/trowel to thickness between 1/8" to 3/8"; 22 NA is liquid applied with gage rake or notched squeegees to thickness between 3/16" to 1/4"; 24NA is a liquid applied with gage rakes to thickness between 1/8inch to 3/16inch; 29NA is a liquid applied by trowel for cove bases and vertical applications; 31NA is applied with notched squeegees to thickness between 16 to 20 mils, All of the PURCHEM materials work as a MVT Control coating for resinous floor systems and can be applied over green or damp concrete.

Equipment Registration Certification:

To the best of my knowledge and belief, all information submitted on this form is true, accurate and complete.

Juan Leon - Technical Sales Representative

Printed Name and Title

Juan Leon

Signature (right click to sign)

Digitally signed by Juan Leon
Date: 2021.02.17 16:45:19 -05'00'

02/17/2021

Date

For Department Use Only:

Date Application Received: 02/18/2021 Application complete: Yes: ☒ No: ☐

EQ- 954 Date of complete or incomplete letter sent: 02/19/2021 Date Equipment Requires Renewal: 02/18/2026

Storage tank system equipment requires renewal every 5 years in accordance with subsection 62-762.851(2), F.A.C.



COMPLIANCE TESTED by berkeley analytical

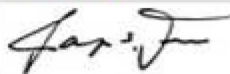
VOC Emission Test Certificate

Product Name: Sikafloor 31 NA PurCem

Product Sample Information

Company:	Sika Corporation
Company Website:	www.sikausa.com
Product Type:	Floor Coatings or Adhesives
Date Produced:	5/30/2018

Certificate Information

Certificate No:	180720-04
Certified By:	 Raja S. Tannous, Laboratory Director
Date:	July 20, 2018

Reference Standard: California Department of Public Health CDPH/EHLB/Standard Method Version 1.2, 2017
(Emission testing method for CA Specification 01350)

Acceptance Criteria and Results Demonstrating Compliance of Product Sample to Referenced Standard:

Exposure Scenario ¹	Individual VOCs of Concern ²		Formaldehyde ³		TVOC ⁴
	Criterion	Compliant?	Criterion	Compliant?	Range
School Classroom	≤½ Chronic REL	YES	≤9.0 µg/m ³	YES	≤ 0.5 mg/m ³
Private Office	≤½ Chronic REL	YES	≤9.0 µg/m ³	YES	≤ 0.5 mg/m ³

Product Coverage⁵: 677 g/m²

1. Exposure scenarios & product quantities for classroom & office are defined in Tables 4-2 – 4-5 (CDPH Std. Mtd. V1.2-2017)
2. Maximum allowable concentrations of individual target VOCs are specified in Table 4-1 (*ibid.*)
3. Maximum allowable formaldehyde concentration is ≤9 µg/m³, effective Jan 1, 2012; previous limit was ≤16.5 µg/m³ (*ibid.*)
4. Informative only; predicted TVOC Range in three categories, i.e., ≤0.5 mg/m³, >0.5 – 4.9 mg/m³, and ≥5.0 mg/m³
5. Informative and applicable only to tests of wet-applied products; grams of sample applied per square meter of substrate

Standards & Codes Recognizing CDPH Standard Method V1.2 (partial list)

- USGBC LEED Version 4, BD&C, ID&C
- The WELL Building Standard
- ANSI/GBI 01, Green Building Assessment Protocol

Narrative: Sika Corporation selected a sample representative of its Sikafloor 31 NA PurCem product and submitted it on 6/21/2018 for testing. Berkeley Analytical measured and evaluated the emissions of VOCs from this sample following CDPH/EHLB/Standard Method V1.2-2017. The results of the test are presented in Berkeley Analytical report, 991-005-07A-Jul2018.

Berkeley Analytical is an independent, third-party laboratory specializing in the analysis of organic chemicals emitted by and contained in building products, finishes, furniture, and consumer products. We are an ISO/IEC 17025 accredited laboratory (IAS, [TL-383](#)); all standards used in performing this test are in Berkeley Analytical's scope of accreditation.

DISCLAIMER: THIS CERTIFICATE OF COMPLIANCE AFFIRMS THAT: 1) A SAMPLE OF THE LISTED PRODUCT WAS TESTED ACCORDING TO THE REFERENCED STANDARD; 2) THE MEASURED VOC EMISSIONS FROM THE SAMPLE WERE EVALUATED FOR THE DEFINED EXPOSURE SCENARIO(S); AND 3) THE RESULTS MEET THE ACCEPTANCE CRITERIA OF THE REFERENCED STANDARD(S). BERKELEY ANALYTICAL IS NOT RESPONSIBLE FOR ANY CLAIMS REGARDING A PRODUCT OR PRODUCTS ENTERED INTO COMMERCE THAT MAY BE BASED ON THIS TEST. BERKELEY ANALYTICAL PROVIDES THIS CERTIFICATE OF COMPLIANCE "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE.

PRODUCT DATA SHEET

Sikafloor®-19 NA PurCem®

TROWEL APPLIED CEMENTITIOUS URETHANE MORTAR

PRODUCT DESCRIPTION

Sikafloor®-19 NA PurCem® is a trowel grade, solid color, three-component, water dispersed polyurethane-based/cement and aggregate screed, designed to provide excellent resistance to abrasion, impact, chemical attack and other physical aggression. Sikafloor®-19 NA PurCem® has a textured aggregate surface providing moderate slip resistance. Sikafloor®-19 NA PurCem® Broadcast has a broadcast aggregate texture for increased slip resistance. Both systems are typically installed at 1/4 to 3/8 in (6 to 9 mm) thickness.

USES

Sikafloor®-19 NA PurCem® may only be used by experienced professionals.

- Sikafloor®-19 NA PurCem® is primarily used to protect concrete substrates in severe environments.
- Typically used in food processing plants, wet and dry process areas, freezers and coolers, thermal shock areas, dairies, breweries, wineries, distilleries, laboratories, chemical process plants, pulp and paper plants, warehouses and storage areas.

CHARACTERISTICS / ADVANTAGES

- Can be applied on green concrete, typically 7-10 days and where substrate has tensile bond strength in excess of 218 psi (1.5 MPa).
- Can be applied to concrete substrates where <100 % relative humidity is measured as per ASTM F2170.
- Resists a very wide range of organic and inorganic acids, alkalis, amines, salts and solvents. Consult Sika Technical Service for full details. Refer to the Sikafloor®-19 NA PurCem® Chemical Resistance Chart.
- Similar coefficient of thermal expansion to concrete allowing movement with the substrate through normal thermal cycling. It will perform and retain its physical characteristics through a wide temperature range from -40 °F (-40 °C) up to 248 °F (120 °C).
- Steam cleanable at 1/4–3/8 in (6–9 mm) thickness.
- Bond strength in excess of the tensile strength of concrete, concrete will fail first.
- Non-tainting, odorless.
- Behaves plastically under impact / deforms but will not crack or debond.
- High abrasion qualities result from its aggregate structure.
- Can be applied over partially cured concrete substrates (<10 % surface moisture), full 28 days cure time is not necessary.
- Extra Expansion joints are not necessary; maintain and extend existing expansion joints up through the Sikafloor PurCem Flooring System.
- Minimal maintenance costs, superior life cycle cost advantage versus tile.
- Achieves highest performance ratings according to ASTM G21 resistance to fungi and ASTM D3273 resistance to mold growth.
- Meets the requirements of USDA for use in food plants.

PRODUCT INFORMATION

Packaging	Component A :		1 US gal (3.78 L) 8.53 lb (3.87 kg)
	Component B :		0.7 US gal (2.64 L) 7.33 lb (3.325 kg)
	Component C:		2 x 39.66 lb.(18.02 kg) in bags (powder)
	Components A+B+C:		95.18 lb (43.17 kg)
Appearance / Color	RAL 7012	Basalt Gray	
	RAL 3009	Oxide Red	
	RAL 7038	Agate Gray	
	RAL 1001	Beige	
	RAL 7042	Traffic Grey	
Shelf Life	Components A + B + C: 12 months in original unopened packaging.		
Storage Conditions	Store dry between 50 °F and 75 °F (10–25 °C). Protect from freezing		
Density	17.8 lb./US gal. (2.14 kg/L)		(ASTM C 905)
			at 73° F (23° C) and 50% R.H:
Volatile organic compound (VOC) content	5 g/l	Components A+B+C:	
	5.2 g/l	A+B+C+Sikafloor-15NA Accelerator:	

TECHNICAL INFORMATION

Shore D Hardness	82	(ASTM D-2240)
		at 73° F (23° C) and 50% RH
Indentation	MIL-PRF -24613	~ 0%
		at 73° F (23° C) and 50% R.H
Impact Strength	ASTM D2794	4.18 ft/lb (5.67 joules) at 1/8" (3mm) of thickness
		at 73° F (23° C) and 50% R.H
Abrasion Resistance	CS-17/1,000 cycles/1,000 g -0.155 g loss	ASTM D4060
	H-22/1,000 cycles/1,000 g -2.18 g loss	at 73° F (23° C) and 50% R.H:
Compressive Strength	6,050 psi (41.7 MPa) 28 days	(ASTM 579)
		at 73° F (23° C) and 50% RH
Flexural Strength	1,572 psi (10.8 MPa)	(ASTM C-580)
		at 73° F (23° C) and 50% RH
	Flexural Modulus	ASTM C580
	6.29 x 105 psi (4.34 x 103 MPa)	at 73° F (23° C) and 50% RH
Tensile Strength	540 psi (3.7 MPa)	(ASTM C307)
		at 73° F (23° C) and 50% RH
	Pull- off Strength >400 psi (>2.5 MPa) (Substrate failure)	ASTM D4541
		at 73° F (23° C) and 50% RH
Tensile Adhesion Strength	> 400 psi (> 2.5 MPa) (substrate failure)	(ASTM D-4541)
		at 73° F (23° C) and 50% RH
Coefficient of Thermal Expansion	(ASTM D-696)	1.06 x 105 in/in/°F
		(1.9 x 105 mm/ mm/°C)
		at 73° F (23° C) and 50% RH

Microbiological Resistance	Resistance to Fungi Growth Rated 0 (no growth)			ASTM G21 at 73° F (23° C) and 50% R.H
	Resistance to Mold Growth Rated 10 (highest resistance)			ASTM D3273 at 73° F (23° C) and 50% R.H
Water Absorption	ASTM C413			0.28% at 73° F (23° C) and 50% R.H:
Thermal Resistance	Pass			ASTM C884 at 73° F (23° C) and 50% RH
Service Temperature	-40°F (-40°C) up to 248°F (120°C)			
Softening Point	266°F (130°C)			at 73° F (23° C) and 50% R.H:
Coverage	Approx. 31 ft ² (2.8 m ²) per unit at 1/4" (6 mm) Approx. 20 ft ² (1.8 m ²) per unit at 3/8" (9 mm) (The above figures do not allow for surface porosity, profile or waste).			
Substrate Temperature	Minimum/Maximum 50°/85°F (10°/30°C)			
Pot Life	Material Temperature	Time		
	+50°F (10°C)	~ 25 - 30 minutes		
	+68°F (20°C)	~ 15 - 20 minutes		
	+86°F (30°C)	~ 5 -10 minutes		
Cure Time	Temperature:	Foot traffic	Light traffic	Full cure
	+50°F (10°C)	~ 24 hours	~ 6 days	~ 10 days
	+68°F (20°C)	~ 12 hours	~ 4 days	~ 7 days
	+86°F (30°C)	~ 6 hours	~ 2 days	~ 5 days
	Reduced cure times may be achieved by using Sikafloor 15NA Accelerator. See the Sikafloor 15NA product data sheet for complete use and mixing information.			
Waiting / Recoat Times	Before applying Sikafloor®-19 NA PurCem® when a Scratch primer is used allow;			
	Substrate Temperature	Minimum	Maximum	
	+50°F (10°C)	24 hours	7 days	
	+68°F (20°C)	6 hours	72 hours	
	+86°F (40°C)	4 hours	24 hours	

SURFACE PREPARATION

Surface Preparation above this sentence be clean and sound. Remove all dust, dirt, existing paint films, efflorescence, exudates, laitance, forms oils, hydraulic or fuel oils, brake fluid, grease, fungus, mildew, biological residues or any other contaminants which may prohibit good bond. Prepare the surface by any appropriate mechanical means, in order to achieve a profile equivalent to ICRI-CSP 3-6. The compressive strength of the concrete substrate should be at least 3,625 psi (25 MPa) 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.

Edge Terminations

All free edges of a Sikafloor PurCem floor, whether at the perimeter, along gutters or at drains require extra anchorage to distribute mechanical and thermal stresses. This is best achieved by forming or cutting grooves in the concrete. Grooves should have a depth and width of 2 times the thickness of the Sikafloor PurCem floor. Contact Sikafloor Technical Service for more information and construction details.

If necessary, protect all free edges with mechanically attached metal strips. Do not feather edge, always turn into an anchor groove.

Expansion Joints

should be provided in the substrates at the intersection of dissimilar materials. Isolate areas subject to thermal stresses, vibration movements or around load-bearing columns and at vessel sealing rings. Refer to details provided at <https://usa.sika.com/flooring>.

Priming

Substrate priming is normally not required under typical circumstances. However, due to variations in concrete quality, surface conditions, surface preparation and ambient conditions, test areas are recommended to determine whether priming is required to prevent the possibility of blisters, debonding, pinholes and other aesthetic variations.

Standard primer procedure consists of a 40 – 60 mils (1.0 - 1.5 mm) scratch coat of Sikafloor-31NA/24NA PurCem and light broadcasting of dry quartz sand. This is the preferred method for concrete substrates. The application is carried out using a steel trowel, ensuring a continuous coating is achieved.

MIXING

Mix Ratio: Components A : B : C (“C” Consist of two bags of 39.66 lbs each)

= Mix full units only

A “Kol” type mixer, incorporating a motor spun mixing pail and a shear angle mixing blade, or a forced action mixer is recommended. Mixing will be affected by temperature; condition materials for use to 65 - 75° F (18 - 24° C). Premix Components, make sure all pigment is evenly distributed. Pour Components A and B into a clean mixing bucket and mix for 30 seconds. Add Component C (powder) pouring slowly over a period of 20 seconds.

Note: Do not dump powder into resin! Allow Component C to blend for an additional 2-1/2 minutes after all powder is emptied into the resin to ensure complete mixing and that all powders are evenly distributed. During the mixing operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing (Components A+B+C)

Note: Improved flowability on cool substrates can be achieved by removing a maximum of 2.2 lb (1.0 kg) of Component C (powder) per unit. Do not mix more material than can be applied within the working time limits (i.e. Pot Life) at the actual field temperature.

APPLICATION

Sikafloor®-19 NA PurCem®: trowel grade materials are applied with standard steel plastering or cement-finishing trowel 12 x 4 in (30 x 10 cm). Do not use serrated hand trowels. Pour the material from the mixing pail, working to terminations or along the wet edge of previous pours.

Using considerable top pressure on the trowel, spread material from side to side, pushing back into the previous mix (wet edge), pulling forward to establish the thickness and then, with a lighter pressure, trowel from side to side to close up. The last few strokes should always be in one direction only, left to right or right to left, but never back and forth.

Excessive trowelling will bring the resin to the surface reducing the anti-slip surface. Screed box applicators may be used with Sikafloor®-19 NA PurCem®. It is recommended to not use screed boxes greater than 24-inch width. Mix and apply materials as outlined above in Mixing and Application. Sikafloor®-19 NA PurCem® Broadcast requires quartz color aggregate to be broadcast on to the wet surface.

Evenly distribute the matching solid color aggregate by hand, covering all areas to avoid bald spots. Allow a minimum 10 hours cure at 68°F (20°C) before foot traffic. Alternatively, selected mineral aggregates can be broadcast on to the wet surface and sealed with a top coat of Sikafloor-31NA PurCem to lock in the aggregate. This application method requires a minimum 14 hours cure period at 68°F (20°C) before foot traffic, see Sikafloor-31NA PurCem Product Data Sheet.

Product Data Sheet

Sikafloor®-19 NA PurCem®

March 2020, Version 01.02

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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.).

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

IMPORTANT: Product must be protected from freezing. If frozen, discard in a responsible manner in accordance with local, state and federal law

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. Relative Ambient Humidity: Minimum ambient humidity 30%.

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. Calculate Dew Point from the substrate surface temperature, not 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. Under no circumstance should thinners be added to the mix. Adding thinners will void any applicable Sika warranty.

- Do not apply to polymer modified cement mortars (PCC) that may expand when sealed with an impervious resin.
- Do not apply to water-soaked, glistening-wet concrete substrates. (i.e. standing water)
- Do not apply to un-reinforced sand cement screeds, asphaltic or bitumen substrate, glazed tile or non-porous brick, tile and magnesite, copper, aluminum, soft wood, or urethane composition, elastomeric membranes, fiber reinforced polyester (FRP) composites.
- Do not apply to cracked or unsound substrates.

- 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 24 hrs. Protect substrate during application from condensation from pipes or any overhead leaks.
- Protect applied product from exposure to uncured cement products; masonry mortar, drywall compound. Exposure will result in staining that can not be removed.
- Do not apply to surfaces where moisture vapor can condense and freeze.
- Do not apply to vertical or overhead surfaces/ for vertical surfaces refer to Sikafloor-29NA PurCem.
- Do not featheredge.
- Applied material will follow undulations, depressions, lines, etc. of the underlying substrate. Visual appearance of the finished floor may vary, including, but not limited to reflection.

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.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

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.**

Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at <https://usa.sika.com/en/group/SikaCorp/termsandconditions.html> or by calling 1-800-933-7452.

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Product Data Sheet
Sikafloor®-19 NA PurCem®
March 2020, Version 01.02
020814020020000048

Sikafloor-19NAPurCem-en-US-(03-2020)-1-2.pdf



PRODUCT DATA SHEET

Sikafloor®-22 NA PurCem®

SELF LEVELING BROADCAST CEMENTITIOUS URETHANE SLURRY

PRODUCT DESCRIPTION

Sikafloor®-22 NA PurCem® is a self-leveling, solid color, three component, cementitious urethane slurry designed to provide excellent resistance to abrasion, impact, and chemical attack. Sikafloor®-22 NA PurCem® is broadcast with dried quartz sand and sealed with Sikafloor 31NA PurCem to produce a solid color finish, or can be broadcasted with colored quartz aggregate and sealed with Sikafloor resinous flooring products for a decorative finish. The system is typically installed at 3/16 to 1/4 inch (4.5 to 6 mm) thickness.

USES

Sikafloor®-22 NA PurCem® may only be used by experienced professionals.

- Sikafloor 22NA PurCem is primarily used to protect concrete substrates in aggressive environments.
- Typically used in food processing plants, wet & dry process areas, freezers & coolers, dairies, breweries, wineries, distilleries, laboratories, chemical process plants, pulp and paper plants, warehouses and storage areas and pharmaceutical facilities.

CHARACTERISTICS / ADVANTAGES

Can be applied on green concrete (typically 7 -10 days) after preparation (see surface prep section) and where substrate has tensile bond strength in excess of 218 psi (1.5 MPa).

Can be applied to concrete substrates where <100% relative humidity is measured as per ASTM F2170.

Resists a very wide range of organic and inorganic acids, alkalis, amines, salts and solvents. Consult Sika Technical Service for full details. Refer to the Sikafloor PurCem Chemical Resistance Chart.

Similar coefficient of thermal expansion to concrete allowing movement with the substrate through normal thermal cycling. It will perform and retain its physical characteristics through a wide temperature range from -40°F (-40°C) up to 248°F (120°C).

- Bond strength in excess of the tensile strength of concrete, concrete will fail first.
- The broadcast finish provides a slip resistant surface.
- High abrasion qualities result from its aggregate structure.
- Can be applied over partially cured concrete substrates (<10% surface moisture), full 28 days cure time is not necessary.
- Minimal maintenance costs, superior life cycle cost advantage versus tile.
- Extra expansion joints are not necessary; maintain and extend existing expansion joints through the Sikafloor PurCem Flooring System
- Behaves plastically under impact / deforms but will not crack or debond.
- Achieves highest performance ratings according to ASTM G21 resistance to fungi and ASTM D3273 resistance to mold growth.
- Meets the requirements of USDA for use in food plants.
- Non-tainting, odorless.

PRODUCT INFORMATION

Packaging	Component A :	1 US gal (3.78 L) 8.53 lb (3.87 kg)
	Component B :	0.7 US gal (2.64 L) 7.33 lb (3.325 kg)
	Component C:	43.96 lbs (19.94 kg) in a bag (powder)
	Components A+B+C:	59.83 lb (27.14 kg)
Appearance / Color	RAL 7012 Basalt Gray RAL 3009 Oxide Red RAL 7038 Agate Gray RAL 1001 Beige RAL 7042 Traffic Grey	
Shelf Life	Components A & B: 1 year in original unopened packaging. Component C: 6 months in original unopened packaging.	
Storage Conditions	Store dry between 50°- 77°F (10°- 25°C). Protect from freezing.	
Density	16.84 lb/US gal. (2.02 kg/L)	ASTM C905 at 73°F (23°C) and 50% R.H
Volatile organic compound (VOC) content	44 g/L 44.2 g/L	Components A+B+C: A+B+C+Sikafloor-15NA Accelerator:
Shore D Hardness	80-85	ASTM D2240 at 73°F (23°C) and 50% R.H
Indentation	MIL -PRF -24613	~ 0% at 73°F (23°C) and 50% R.H
Impact Strength	ASTM D2794	5.02 ft - lb (6.81 joules)at 1/8" (3 mm) of thickness) 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 -2.26g	ASTM D4060 at 73°F (23°C) and 50% R.H
Compressive Strength	5,802 psi (40 MPa) 28 days	ASTM579 MPa) at 73°F (23°C) and 50% R.H:
Flexural Strength	2,790 psi (8.9 MPa) Flexural Modulus 2.71 x 10 ⁵ psi (1.87 x 10 ³ MPa)	(ASTM C-580) at 73° F (23° C) and 50% RH (ASTM C580) at 73° F (23° C) and 50% RH
Tensile Strength	1,045 psi (6.5 MPa) Pull -off Strength >254 psi (> 1.75 MPa) (substrate failure)	ASTM C307 at 73°F (23°C) and 50% R.H ASTM D4541 at 73°F (23°C) and 50% R.H
Coefficient of Thermal Expansion	0.89 x 10 ⁵ in/in/°F (1.6 x10 ⁵ mm/mm/°C)	ASTM D696 at 73°F (23°C) and 50% R.H
Chemical Resistance	Please consult Sikafloor Technical Services.	
Microbiological Resistance	Resistance to Fungi Growth Rated 0 (no growth) Resistance to Mold Growth Rated 10 (highest resistance)	ASTM G21 at 73°F (23°C) and 50% R.H ASTM D3273 at 73°F (23°C) and 50% R.H
Water Absorption	0.10%	ASTM C413 at 73°F (23°C) and 50% R.H

Service Temperature -40°F (- 4°C) min./212°F (100°C) max.

Softening Point 266°F (130°C) at 73°F (23°C) and 50% R.H

Pot Life	Material Temperature	Time
	+50°F (10°C)	~ 25 - 30 minutes
	+68°F (20°C)	~ 15 - 20 minutes
	+86°F (30°C)	~ 5 -10 minutes

Cure Time	Temperature:	Foot traffic	Light traffic	Full cure
	+50°F (10°C)	~ 24 hours	~ 6 days	~ 10 days
	+68°F (20°C)	~ 12 hours	~ 4 days	~ 7 days
	+86°F (30°C)	~ 6 hours	~ 2 days	~ 5 days

Reduced cure times may be achieved by using Sikafloor 15NA Accelerator. See the Sikafloor 15NA product data sheet for complete use and mixing information.

Waiting / Recoat Times Before applying Sikafloor®-22 NA PurCem® when a Scratch primer is used allow;

Substrate Temperature	Minimum	Maximum
+50°F (10°C)	24 hours	7 days
+68°F (20°C)	6 hours	72 hours
+86°F (40°C)	4 hours	24 hours

SURFACE PREPARATION

Concrete surfaces must be clean and sound. Remove all dust, dirt, existing paint films, efflorescence, exudates, laitance, forms oils, hydraulic or fuel oils, brake fluid, grease, fungus, mildew, biological residues or any other contaminants which may prohibit good bond. Prepare the surface by any appropriate mechanical means, in order to achieve a profile equivalent to ICRI-CSP 3-6. 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 tensile at the time of application. Repairs to cementitious substrates, filling of blowholes, levelling of irregularities, etc. should be carried out using an appropriate Sika profiling mortar. Contact Sika Technical Service for a recommendation.

Edge Terminations - all free edges of a Sikafloor PurCem floor, whether at the perimeter, along gutters or at drains require extra anchorage to distribute mechanical and thermal stresses. This is best achieved by forming or cutting grooves in the concrete. Grooves should have a depth and width of 2 times thickness of the Sikafloor PurCem floor. Refer to the edge details provided at <http://usa.sika.com>. If necessary, protect all free edges with mechanically attached metal strips. Do not featheredge, always turn into an anchor groove.

Expansion Joints - should be provided in the substrates at the intersection of dissimilar materials. Isolate areas subject to thermal stresses, vibration movements or around load-bearing columns and at vessel sealing rings. Refer to details provided at <http://usa.sika.com>.

Priming

Substrate priming is normally not required under typical circumstances. Compressive strength of the concrete substrate of at least 3,625 psi (25 MPa) and at least 218 psi (1.5 MPa) in tensile is required. However, due to variations in concrete quality, surface conditions, surface preparation and ambient conditions, test areas are recommended to determine whether priming is required to prevent the possibility of blisters, debonding, pinholes and other aesthetic variations. Standard primer procedure is a 40 – 60 mils (1.0 - 1.5mm) scratch coat of Sikafloor-31NA/24NA PurCem and light broadcasting of dry quartz sand. This is the preferred method for concrete substrates. The application is done by steel trowel to the substrate, a continuous coating should be ensured.

MIXING

Mix Ratio Components A : B : C = Mix full units only

A “Kol” type mixer, incorporating a motor spun mixing pail and a shear angle mixing blade, or a forced action mixer is recommended. Mixing will be affected by temperature; condition materials for use to 60 - 70°F (15 - 21°C). Premix Components A and B separately, make sure all pigment is evenly distributed. Pour Components A into a clean mixing bucket, and mix for 30 seconds. Add Component C (powder) pouring slowly over a period of 20 seconds. Note: **Do not dump powder into resin!** Allow Component C to blend for a further 2-1/2 minutes after all powder is emptied into the resin to ensure complete mixing and that all powders are evenly distributed. During the mixing operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing (Components A+B+C).

Note: Improved flowability on cool substrates can be achieved by removing a maximum of 2.2 lb (1.0 kg) of Component C (powder) per unit.

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

APPLICATION

Sikafloor®-22 NA PurCem® Scratch Coat - typically not required (see priming instructions)

Body Coat: Priming of concrete substrates is not usually required under typical circumstances. However, due to variations in concrete quality, surface conditions, surface preparation and ambient conditions, reference test areas are recommended to determine whether priming is required to prevent the possibility of blisters, debonding, pinholes and other aesthetic variations. Mix and pour the Sikafloor®-22 NA PurCem® materials on the floor. Spread to the desired thickness (160 mils - 1/4”) using a screed gauge rake or trowel. Take care to spread newly mixed materials across the transition of previous applied mixes before the surface begins to set. Immediately spike roll the surface to release trapped air in the matrix.

Sikafloor®-22 NA PurCem® requires the wet surface to be broadcast to rejection with quartz or mineral aggregates. Aggregate must fall vertically to avoid surface defects / do not broadcast up to the transition line of new mixes, always broadcast 2 - 3 feet beyond the wet edge. Allow broadcast surface to cure sufficiently to be able to resist foot traffic without damaging the surface. Remove excess aggregate by sweeping or vacuuming until surface is free of all loose particles and dust. A topcoat of Sikafloor 31NA PurCem can be applied to lock in the aggregate. Allow a minimum 24 hour cure period at 68°F (20°C) before light traffic after the Sikafloor 31NA PurCem is applied.

Sikafloor®-22 NA PurCem® Colored Quartz: Application method is the same as described above. Instead of a topcoat of Sikafloor 31NA PurCem, seal the surface using a clear polyaspartic; Sikafloor 510 (see product data sheets). Apply Sikafloor 510 top coat by squeegee and roller to provide a uniform coverage without ponding. When required, apply a second coat to achieve a specific texture. Allow a minimum 24 hour cure period at 68°F (20°C) before light traffic.

Please refer to the individual most current and respective Product Data Sheet for specific and detailed information.

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.).

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

IMPORTANT: Product must be protected from freezing. If frozen, discard.

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. Reduced cure times may be achieved by use of Sikafloor-15NA Accelerator. Refer to Sikafloor-15NA product data sheet for complete mixing and use instructions. Relative Ambient Humidity: Minimum ambient humidity 30% 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. Calculate Dew Point from the substrate surface temperature, not 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. Thinners should never be added to the mix. Adding thinners will void any applicable Sika warranty.

Product Data Sheet

Sikafloor®-22 NA PurCem®

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- Do not apply to polymer modified cement mortars (PCC) that may expand when sealed with an impervious resin.
- Do not apply to water-soaked, glistening-wet concrete substrates. (i.e standing water)
- Do not apply to un-reinforced sand cement screeds, asphaltic or bitumen substrate, glazed tile or non-porous brick, tile and magnesite, copper, aluminum, soft wood, or urethane composition, elastomeric membranes, fiber reinforced polyester (FRP) composites.
- Do not apply to cracked or unsound substrates.
- Do not apply while ambient and substrate temperatures are rising, as pinholes may occur.
- Freshly applied material should be protected from dampness, condensation and water for at least 24 hrs.
- Protect substrate during application from condensation from pipes or any overhead leaks.
- Do not apply to surfaces where moisture vapor can condense and freeze.
- Do not apply to vertical or overhead surfaces/ for vertical surfaces refer to Sikafloor-29NA PurCem.
- Do not featheredge.
- Applied material will follow undulations, depressions, lines, etc. of the underlying substrate. Visual appearance of the finished floor may vary, including, but not limited to, reflection of
- "waviness", slab transitions, etc.
- Color uniformity cannot be completely guaranteed from batch to batch (numbered). Take care when using Sikafloor PurCem products to draw from inventory in batch number sequence, do not mix batch numbers in a single floor area.
- 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.
- Solid color UV resistant top coat available.
- 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.
- For professional use only by experienced applicators.

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.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

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.

Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at <https://usa.sika.com/en/group/SikaCorp/termsandconditions.html> or by calling 1-800-933-7452.

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Product Data Sheet

Sikafloor®-22 NA PurCem®
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PRODUCT DATA SHEET

Sikafloor®-24 NA PurCem®

ADVANCED GENERATION SELF LEVELING THIN LAYER POLYURETHANE/CEMENT SLURRY FOR GENERAL INDUSTRIAL AND COMMERCIAL USE

PRODUCT DESCRIPTION

Sikafloor®-24 NA PurCem® is a state of the art, phthalate-free, water dispersed polyurethane based/cement and aggregate screed, applicable at thicknesses ranging from 80 to 160 mils (2 to 4 mm). It is designed to be installed as a self leveling floor topping that provides an easy-to-clean, smooth surface with slip resistance and is typically used for general, industrial applications. Sikafloor®-24 NA PurCem® represents superior polyurethane/cement technology, combining easier application, resistance to blistering and improved performance.

USES

Sikafloor®-24 NA PurCem® may only be used by experienced professionals.

- Typically used in areas of medium to heavy loading and abrasion, to provide a smooth, flat and thin self-leveling layer in general industrial areas, including warehouses, production facilities, laboratories and workshops, either with or without a Sikafloor® sealer top coat.
- As thin layer, flat but slip-resistant screed in commercial environments, with a suitable UV-stable Sikafloor sealer for retention of aesthetics.
- As broadcast receiving coat, slip-resistant screed in commercial environments, with a suitable UV-stable Sikafloor sealer for retention of aesthetics.
- When used as a base for MVT system, total thickness must be 1/8-inch (3.2mm).

CHARACTERISTICS / ADVANTAGES

- Can be applied on green concrete (typically 7 -10 days) after preparation (see surface prep section) and where substrate has tensile bond strength in excess of 218 psi (1.5 MPa).
- Can be applied over partially cured concrete substrates, full 28 days cure time is not necessary.
- Easy installation requiring less labor to install than traditional Sikafloor® PurCem® trowel and heavy duty slurry grade materials
- Can be applied to concrete substrates where <100% relative humidity is measured as per ASTM F2170.
- Wide range of application temperatures from 45°F (7°C) minimum to 100°F (38°C) maximum.
- Resists a very wide range of organic and inorganic acids, alkalis, amines, salts, and solvents. Consult Sika Technical Service for full details. Refer to the Sikafloor PurCem Chemical Resistance Chart.
- Good abrasion resistance, providing cost effective and durable floor topping.
- Similar coefficients of thermal expansion to concrete allowing movement with the substrate through normal thermal cycling.
- Performs and retains its physical characteristics through a wide, wet or dry temperature range from 23°F (-5°C) at 2.0 mm and 14°F (-10°C) at 4.0 mm up to 248°F (120°C).
- Superior formulation eliminates formation of blisters, such as those arising out of application during elevated temperatures or early and multiple layer applications.
- Non-tainting, odorless and phthalate-free, avoiding associated toxicity to health and environmental hazards.

- Bond strength in excess of the tensile strength of concrete, concrete will fail first.
- Compatible with a wide range of Sikafloor epoxy or polyurethane resin sealers, enabling UV- stable sealers to be applied where required.
- Consult Sika Technical department for full details.
- Minimal maintenance costs, superior life cycle cost advantage versus tile.
- Maintain and extend existing expansion joints up through the Sikafloor PurCem Flooring System.
- Behaves plastically under impact / deforms but will not crack or debond.
- Achieves highest performance ratings according to ASTM G21 resistance to fungi and ASTM D3273 resistance to mold growth
- Meets the requirements of USDA for use in food plants.

PRODUCT INFORMATION

Chemical Base	Sikafloor®-24 NA PurCem®	
	Scratch coat:	Where surface/substrate profile requires such. Not required under full quartz broadcast Approx. 215 ft ² /unit (20 m ² /unit) @ 40 mils (1 mm) per coat)
	Screed:	These figures do not allow for surface porosity, profile or wastage Approx. 107 ft ² (10 m ²) per unit at 80 mils (2 mm) Approx. 85 ft ² (7.9 m ²) per unit at 100 mils (2.5 mm) Approx. 71 ft ² (6.6 m ²) per unit at 120 mils (3 mm)
	Broadcast Application:	Primer/Scratch Coat (where surface/substrate profile requires Body Coat: Approx. 107 ft ² (10 m ²) per unit at 80 mils (2 mm) Broadcast to excess
Packaging	Component A:	1 US gal (3.78 L) 8.53 lb (3.87 kg)
	Component B:	0.7 US gal (2.64 L) 7.33 lb (3.325 kg)
	Component C:	45.21 lbs (20.51 kg) in a bag (powder)
	Mix Units 2A + 2B + 1C:	76.87 lb (34.87 kg) (5.33 US gal)
Appearance / Color	RAL 7012 Basalt Gray RAL 7038 Agate Gray RAL 7042 Traffic Grey A RAL 3009 Oxide Red RAL 1001 Beige	
Shelf Life	Components A, B and C: 1 year in original unopened packaging. Store dry between 50° - 77°F (10° - 25°C).	
Storage Conditions	Protect from freezing. If frozen, discard product . Condition material for at least 24 hours to 65 - 75°F (18 - 24°C) before use.	

Density	14.45 lb/US gal. (1.73 kg/L)		ASTM C905 at 73°F (23°C) and 50% R.H	
Volatile organic compound (VOC) content	5 g/l		Components A+B+C	
Shore D Hardness	83		ASTM D2240 at 73°F (23°C) and 50% R.H	
Indentation	~ 0%		MIL -PRF -24613 at 73°F (23°C) and 50% R.H	
Abrasion Resistance	0.07 g (0.0025 oz) H-17/1000 cycles/1000 g (2.2 lb) 0.24 g (0.0084 oz) H-22/1000 cycles/1000 g (2.2 lb)		ASTM D4060 73°F (23°C) and 50% R.H	
Compressive Strength	6,961psi (48 MPa) 28 days		ASTM 579 73°F (23°C) and 50% R.H	
Flexural Strength	2,726 psi (18.8 MPa)		ASTM C580 at 73°F (23°C) and 50% R.H	
Modulus of Elasticity in Flexure	2.71 x 105 psi (1.87 x 103 MPa) 14 days		ASTM C580 at 73°F (23°C) and 50% R.H	
Tensile Strength	1,290 psi (8.9 MPa)		ASTM C307 at 73°F (23°C) and 50% R.H	
Tensile Adhesion Strength	597 psi (4.12 MPa) (substrate failure)		ASTM D 4541 at 73°F (23°C) and 50% R.H	
Shrinkage	0.248%		at 73°F (23°C) and 50% R.H	
Coefficient of Thermal Expansion	3.02 x 10 ⁵ in/in/°F (5.43 x 10 ⁵ mm/mm/°C)		ASTM D696 at 73°F (23°C) and 50% R.H	
Chemical Resistance	Please consult Sikafloor Technical Services.			
Microbiological Resistance	Resistance to Fungi Growth Rated 0 (no growth)		ASTM G21 at 73°F (23°C) and 50% R.H,	
	Resistance to Mold Growth Rated 10 (highest resistance)			
Thermal Compatibility	Pass		ASTM C884 at 73°F (23°C) and 50% R.H	
Water Absorption	0.10%		ASTM C413 at 73°F (23°C) and 50% R.H	
Service Temperature	14°F (-10°C) min / 248°F (120°C) max			
Softening Point	266°F (130°C)			
Pot Life	Material Temperature		Time	
	+ 50°F (10°C)		~ 25 - 30 minutes	
	+ 68°F (20°C)		~ 15 - 20 minutes	
	+ 86°F (30°C)		~ 5 - 10 minutes	
Cure Time	Substrate Temperature	Light traffic	Foot traffic	Full cure
	+50°F (10°C)	~ 24 hours	~ 48 hours	~ 10 days
	+68°F (20°C)	~ 12 hours	~ 24 hours	~ 7 days
	+86°F (30°C)	~ 6 hours	~ 18 hours	~ 5 days

Waiting / Recoat Times

Before applying Sikafloor-24NA PurCem when a scratch primer and sealer coat is used allow.

Ambient & Substrate Temperature	Minimum	Maximum
+50°F (10°C)	24 hours	7 days
+68°F (20°C)	6 hours	3 days
+86°F (30°C)	4 hours	2 days

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 3-6. 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.

Edge Terminations

All free edges of a Sikafloor PurCem floor, whether at the perimeter, along gutters or at drains, require extra anchorage to distribute mechanical and thermal stresses. This is best achieved by forming or cutting grooves in the concrete. Grooves should have a depth and width of 2 times thickness of the Sikafloor PurCem floor. Refer to the edge details provided at <http://usa.sika.com>.

If necessary, protect all free edges with mechanically attached metal strips. Do not feather edge, always turn into an anchoring groove.

Expansion Joints

Should be provided in the substrates at the intersection of dissimilar materials. Isolate areas subject to thermal stresses, vibration movements, or around load-bearing columns and at vessel sealing rings. Refer to details provided at <http://usa.sika.com>.

MIXING

Mix Ratio Components A : B : C (2A : 2B : 1C)

Note: Mix full units only

Mixing will be affected by temperature; condition materials for use to 65 to 75°F (18 to 24°C) for at least 24 hours before use.

Use a low speed drill (300-450 rpm) and Exomixer-type mixing paddle (recommended) suited to the size of mixing container to minimize air entrapment.

Pre-agitate component A separately, making sure all solids, including pigments, are uniformly distributed. Start mixer; add component A and component B, blending for 30 seconds. Add component C (powder) pouring slowly over a period of 20 seconds.

DO NOT DUMP POWDER INTO RESIN, ADD GRADUALLY. Allow component C to further blend for 2 1/2 more minutes after all of the powder is emptied into the resin to ensure all powder is wetted out and a completely uniform mix is achieved.

During the mixing operation, and observing good safety practices, ie turning off and removing revolving parts, scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete blending of components A + B + C.

Note: Do not attempt to attend to unmixed material that may gather on the sides of the mixing container while mechanical or electrical parts are in motion.

APPLICATION

Priming of concrete substrates is not usually required under typical circumstances. However, due to variations in concrete quality, surface conditions, surface preparation and ambient conditions, reference test areas are recommended to determine whether priming is required to prevent the possibility of blisters, debonding, pinholes and other aesthetic variations. Note: Given the fluidity and relatively thin-layer installation of Sikafloor®-24 NA PurCem® a primer for porous substrates or a scratch coat where the surface profile demands such, are highly recommended.

Smooth Application

For smooth applications, a primer or scratch is required
Primer - Mix and apply a primer coat of Sikafloor-31NA PurCem at a consumption of approximately 165 ft²/unit (15.3 m²/unit) per coat to achieve a complete 10 mils d.f.t. coverage of the substrate, using a short or medium nap roller. Work the priming resin well into the surface, making sure the floor is fully wetted and then pull back lightly with the roller to the required thickness. Prime retaining (anchor) grooves but do not fill. Allow a cure period of at least 3 hours at 68°F (20°C) before application of the smooth screed mortar.

Scratch Coat (optional)

Where the surface profile requires such and where a flat floor is intended, mix and apply a scratch coat of Sikafloor®-24 NA PurCem® using steel trowels to spread the materials at a consumption of approximately 215 ft²/unit (20 m²/unit) per unit, achieving a minimum 40 mils (1 mm) thickness. This application must be applied to seal the concrete surface, fill in surface irregularities; including pock marks, non-moving control joints and cracks.

(Note: Should the scratch coat at 40 mils (1 mm) not fill and level the irregularities, additional coats can be applied, observing the necessary inter-coat curing times). Allow a cure period of at least 3 hours at 68°F (20°C) before application of the screed.

Smooth Screed

Mix and pour the Sikafloor®-24 NA PurCem® onto the floor. Spread to the desired thickness, from 80 - 160 mils (2 - 4 mm), at approximate consumptions of 107 ft² (10 m²) per unit at 80 mils (2 mm) to 53.5 ft² (5 m²) per unit at 160 mils (4 mm), using a notched trowel or pin or cam gauge rake. **Note:** Take care to spread freshly mixed materials across the transition of previously applied mixes before the previously applied material begins to set. Immediately spike roll the surface to release trapped air in the matrix. Roller spikes must be at least three times longer than the applied product thickness. Allow a minimum 18 hours cure period at 68°F (20°C) before foot traffic.

Broadcast Application 125 mils (3 mm) Primer

Priming or scratch coat of concrete substrates is not usually required under typical circumstances. However, due to variations in concrete quality, surface conditions, surface preparation and ambient conditions, reference test areas are recommended to determine whether priming is required to prevent the possibility of blisters, debonding, pinholes and other aesthetic variations. For a primer, use either Sikafloor-31NA PurCem FS or Sikafloor®-24 NA PurCem® Scratch Coat.

Screed

Mix and pour the Sikafloor®-24 NA PurCem® materials on the floor. Spread mixed material to approximately 107 ft² (10 m²) per unit at 80 mils (2 mm) using a screed gauge rake or trowel. Take care to spread newly mixed materials across the transition of previously applied mixes before the surface begins to set. Immediately spike roll the surface to release trapped air in the matrix. Broadcast selected aggregate to rejection. Aggregate must fall vertically to avoid surface defects / do not broadcast up to the transition line of new mixes, always broadcast 2 - 3 feet beyond the wet edge. Allow broadcast surface to cure sufficiently to be able to resist foot traffic without damaging the surface. Remove excess aggregate by sweeping or vacuuming until surface is free of all loose particles and dust.

A topcoat of Sikafloor-31NA PurCem or other topcoats depending on applications can be applied to lock in the aggregate. Allow a minimum 24 hour cure period at 68°F (20°C) before light traffic after the Sikafloor-31NA PurCem is applied.

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

IMPORTANT

Product must be protected from freezing. If frozen, discard.

Ambient Temperature: Minimum/Maximum 45°/100°F (10°/30°C)

Substrate Temperature: Minimum/Maximum 45°/100°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. Cool Substrates: Application attempted at material, ambient and substrate temperatures below 65°F (18°C) will result in a decrease in product workability and slower cure rates. Do not mix more material than can be applied within the working time limits (i.e. Pot Life) at the actual field temperature.

Relative Ambient Humidity: Minimum ambient humidity 30%

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. Calculate Dew Point from the substrate surface temperature, not 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. On no account should thinners be added to the mix. Adding thinners will void any applicable Sika warranty.

Application

- Do not apply below 45°F (7°C) or above 100°F (38°C) / maximum relative humidity 85%. Use at temperatures around 100°F (38°C) is likely to result in reduced pot and working lives.
- Do not apply to polymer modified cement mortars (PCC) that may expand when sealed with an impervious resin.
- Do not apply to water-soaked, glistening-wet concrete substrates. (i.e standing water)
- Do not apply to un-reinforced sand cement screeds, asphaltic or bitumen substrate, glazed tile or non-porous brick, tile and magnesite, copper, aluminum, soft wood, or urethane composition, elastomeric membranes, fiber reinforced polyester (FRP) composites.
- Do not apply to cracked or unsound substrates.
- Do not apply while ambient and substrate temperatures are rising, as pinholes may occur.
- Freshly applied material should be protected from dampness, condensation and water for at least 24 hrs. Protect substrate during application from condensation from pipes or any overhead leaks.
- Do not apply to surfaces where moisture vapor can condense and freeze.
- Do not apply to vertical or overhead surfaces/ for vertical surfaces refer to Sikafloor NA Purcem.
- Do not featheredge.
- Applied material will follow undulations, depressions, lines, etc. of the underlying substrate.
- Visual appearance of the finished floor may vary, including, but not limited to, reflection of “waviness”, slab transitions, etc.
- Color uniformity cannot be completely guaranteed from batch to batch (numbered). Take care when using Sikafloor PurCem products to draw from inventory in batch number sequence, do not mix batch numbers in a single floor area.
- Will discolor over time when exposed to UV light and under certain artificial lighting conditions. Use Sikafloor as a solid color, UV resistant top coat. Use of clear, UV resistant top coats may not prevent discoloration of underlying materials.

- 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.
- Hot steam cleaning may lead to delamination due to thermal shock. Where thermal shock resistance is required, use an alternate Sikafloor® NA Purcem® material, consult Sikafloor technical service for advice.
- Do not use on exterior, on-grade substrates; for interior use only.
- For professional use only by experienced applicators.

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.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

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

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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Product Data Sheet
Sikafloor®-24 NA Purcem®
May 2020, Version 01.02
020814020020000050

Sikafloor-24NAPurCem-en-US-(05-2020)-1-2.pdf



PRODUCT DATA SHEET

Sikafloor®-29 NA PurCem®

HIGH STRENGTH CEMENTITIOUS URETHANE COVING AND DETAILING MORTAR

PRODUCT DESCRIPTION

Sikafloor®-29 NA PurCem® is a vertical grade, three-component, solid color, water dispersed polyurethane-based/cement and aggregate mortar used for detailing work and coving. It has a finely textured smooth aggregate appearance that provides excellent resistance to abrasion, impact, chemical attack and other physical aggression. System is typically installed at 1/8 to 1/4 in (3 - 6 mm) thickness.

USES

Sikafloor®-29 NA PurCem® may only be used by experienced professionals.

- Sikafloor-29NA PurCem is primarily used for vertical application of cove/cant on concrete substrates
- Typically used in food processing plants, wet and dry process areas, freezers and coolers, dairies, breweries, wineries, distilleries, laboratories, chemical process plants, pulp and paper plants, warehouses and storage areas.

CHARACTERISTICS / ADVANTAGES

- Can be applied on green concrete (typically 7 -10 days) after preparation (see surface prep section) and where substrate has tensile bond strength in excess of 218 psi (1.5 MPa).
- Can be applied to concrete substrates where < 100% relative humidity is measured as per ASTM F2170.
- Resists a very wide range of organic and inorganic acids, alkalis, amines, salts and solvents. Consult Sika Technical Service for full details. Refer to the Sika PurCem Chemical Resistance Chart
- Designed specifically for trowel applications to vertical surfaces.
- Similar coefficient of thermal expansion to concrete allowing movement with the substrate through normal thermal cycling. It will perform and retain its physical characteristics through a wide temperature range from -40°F (-40°C) up to 248°F (120°C).
- Bond strength in excess of the tensile strength of concrete, concrete will fail first.
- Non-taint, odorless.
- Can be applied over partially cured concrete substrates (<10% surface moisture), full 28 days cure time is not necessary.
- Behaves plastically under impact; deforms but will not crack or debond.
- High abrasion qualities result from its aggregate structure.
- Easily maintained.
- Minimal maintenance costs, superior life cycle cost advantage versus tile.
- Achieves highest performance ratings according to ASTM G21 resistance to fungi and ASTM D3273 resistance to mold growth.
- Meets the requirements of USDA for use in food plants.

PRODUCT INFORMATION

Packaging	Component A:	0.5 US gal (1.89 L) 4.25 lb (1.94 kg)
	Component B:	0.35 US gal (1.32 L) 3.65 lb (1.66 kg)
	Component C:	47.92 lbs (21.74 kg) in a bag (powder)
	Components A+B+C:	A+B+C: 55.82 lb (25.31 kg)
Appearance / Color	RAL 7012 Basalt Gray RAL 7038 Agate Gray RAL 7042 Traffic Grey RAL 3009 Oxide Red RAL 1001 Beige	
Shelf Life	Components A+B: 1 year in original unopened packaging Component C: 6 months in original unopened packaging.	
Storage Conditions	Store dry between 50°- 77°F (10°- 25°C). Protect from freezing.	
Density	17.53 lb/US gal. (1.40 kg/L)	ASTM C905 at 73°F (23°C) and 50% R.H

TECHNICAL INFORMATION

Shore D Hardness	80 - 85	ASTM D2240 at 73°F (23°C) and 50% R.H
Indentation	~ 0%	MIL -PRF -24613 at 73°F (23°C) and 50% R.H
Impact Strength	6.70 ft - lb (9.08 joules) at 1/8" (3 mm) of thickness	ASTM D2794 at 73°F (23°C) and 50% R.H
Abrasion Resistance	CS-17/1,000 cycles/1,000 g (2.2 lb) -0.09 g (-0.0031 oz)	ASTM D4060 at 73°F (23°C) and 50% R.H
	H-22/1,000 cycles/1,000 g (2.2 lb) -4.01 g (-0.141 oz) Resistance to Mold Growth Rated 10 (highest resistance)	ASTM D3273 at 73°F (23°C) and 50% R.H
Compressive Strength		ASTM C579 at 73°F (23°C) and 50% R.H
	2,901 psi (20 MPa)	24 hrs
	4,496 psi (31 MPa)	7 days
	5,076 psi (35 MPa)	28 days
Tensile Strength	2.5 MPa (363 psi)	ASTM C307 at 73°F (23°C) and 50% R.H
Coefficient of Thermal Expansion	0.72 x 10 ⁻⁵ in/in/°F (1.3 x 10 ⁻⁵ mm/mm/°C)	ASTM D696 at 73°F (23°C) and 50% R.H
	Coefficient of Friction	ASTM D1894-61T
	Steel 0.7	at 73°F (23°C) and 50% R.H
	Rubber 0.8	
Chemical Resistance	Thermal Compatibility Pass	ASTM C884 at 73°F (23°C) and 50% R.H
	Please consult Sikafloor Technical Services.	

Microbiological Resistance	Resistance to Fungi Growth Rated 0 (no growth)	at 73°F (23°C) and 50% R.H	
	Resistance to Mold Growth Rated 10 (highest resistance)	at 73°F (23°C) and 50% R.H	
Water Absorption	0.16%	ASTM C413 at 73°F (23°C) and 50% R.H	
Softening Point	266°F (130°C)	at 73°F (23°C) and 50% R.H	
Pot Life	Material Temperature	Time	
	+50°F (10°C)	~ 30 - 35 minutes	
	+68°F (20°C)	~ 20 - 25 minutes	
	+86°F (30°C)	~ 10 - 15 minutes	
Cure Time	SubstrateTemperature	Full cure	
	+50°F (10°C)	~ 10 days	
	+68°F (20°C)	~ 7 days	
	+86°F (30°C)	~ 5 days	
Waiting / Recoat Times	Before applying sealer coat on Sikafloor-29NA PurCem allow		
	Substrate Temperature	Minimum	Maximum
	+58°F (10°C)	24 hours	7 days
	+68°F (20°C)	12 hours	3 days
	+86°F (30°C)	6 hours	2 days

SURFACE PREPARATION

Concrete surfaces must be clean and sound. Remove all dust, dirt, existing paint films, efflorescence, exudates, laitance, forms oils, hydraulic or fuel oils, brake fluid, grease, fungus, mildew, biological residues or any other contaminants which may prohibit good bond. Prepare the surface by any appropriate mechanical means, in order to achieve a profile equivalent to ICRI-CSP 3-6. 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.

Edge Terminations - all free edges of a Sikafloor®-29 NA PurCem®, whether at the perimeter, along gutters or at drains require extra anchorage to distribute mechanical and thermal stresses. This is best achieved by forming or cutting grooves in the concrete. Grooves should have a depth and width of 2 times the thickness of the Sikafloor®-29 NA PurCem®. Refer to the edge details provided at <http://usa.sika.com>. If necessary, protect all free edges with mechanically attached metal strips. Never featheredge, always turn into an anchor groove. **Expansion Joints** - should be provided in the substrates at the intersection of dissimilar materials. Isolate areas subject to thermal stresses, vibration movements or around load-bearing columns and at vessel sealing rings. Refer to details provided at <http://usa.sika.com>.

Priming

Priming for concrete substrate is required. Prime with

either Sikafloor 160, Sikafloor 161 or Sikafloor 1610 at a rate of 160 – 200 ft²/gal., using a brush or roller to provide uniform coverage. Primer must be tacky during the application of Sikafloor®-29 NA PurCem® mortar. Only mix and apply enough primer that can be overlaid before it cures (approximately 3 hour at 68°F/20°C). If the primer loses tackiness, remove any surface contaminates then recoat with additional primer coat. Please refer to the individual most current and respective product Data Sheet for specific and detailed information.

MIXING

Mix Ratio Components A : B : C

Note Mix full units only

A “kol” type mixer, incorporating a motor spun mixing pail and a shear angle mixing blade, or a forced action mixer is recommended. Mixing will be affected by temperature; condition materials for use to 65 - 75° F (18 - 24° C). Premix Components A and B separately, make sure all pigment is evenly distributed. Pour Components A into a clean mixing bucket/container large enough to accommodate the mix size quantity. and mix for 30 seconds. Add Component C (powder) pouring slowly over a period of 20 seconds.

Note: Do not dump powder into resin! Allow Component C to blend for an additional 2 1/2 minutes after all powder is emptied into the resin to ensure complete mixing and that all powders are evenly distributed. During the mixing operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing (Components A+B+C).

APPLICATION

Mix and apply Sikafloor®-29 NA PurCem® using steel trowels to spread and compact the mortar on vertical surfaces. Bottle coves and other shaped fillets can be achieved using the appropriate tools. A light brushing while the mortar is still workable will close any surface voids. Allow a minimum 10 hour cure period at 68°F (20°C).

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 $\leq 4\%$ 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 Sikafloor 1610.

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 Sikafloor 1610.

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).

IMPORTANT: Product must be protected from freezing. If frozen, discard.

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.

Relative Ambient Humidity: Minimum ambient humidity 30%

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. Calculate Dew Point from the substrate surface temperature, not the ambient temperature.

Do not Mixing: 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. On no account should thinners be added to the mix. Adding thinners will void any applicable Sika warranty.

Application

- Do not apply to polymer modified cement mortars (PCC) that may expand when sealed with an impervious resin.
- Do not apply to water-soaked, glistening-wet concrete substrates. (i.e standing water)
- Do not use on exterior, on-grade substrates; for interior use only.
- Do not apply to surfaces where moisture vapor can condense and freeze.
- Do not apply to water-soaked, glistening-wet concrete substrates.
- Do not apply to un-reinforced sand cement screeds, asphaltic or bitumen substrate, glazed tile or non-porous brick, tile and magnesite, copper, aluminium, soft wood, or urethane composition, elastomeric membranes, fibre reinforced polyester (FRP) composites.
- 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 24 hrs.
- Protect substrate during application from condensation from pipes or any overhead leaks.
- Do not featheredge.
- Color uniformity cannot be completely guaranteed from batch to batch (numbered). Take care when using Sikafloor PurCem products to draw from inventory in batch number sequence, do not mix batch numbers in a single floor area.
- Some colors may produce noticeable shade variations between Sikafloor PurCem systems (e.g. difference between floor and coving mortars). In order to achieve a uniform appearance, the use of top coats (e.g. Sikafloor-31NA) throughout entire area may be required.

Product Data Sheet

Sikafloor®-29 NA PurCem®

November 2019, Version 01.01

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- 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.
- For professional use only by experienced applicators.

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.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
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- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
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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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Product Data Sheet
Sikafloor®-29 NA PurCem®
November 2019, Version 01.01
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PRODUCT DATA SHEET

Sikafloor®-31 NA PurCem®

SOLVENT-FREE, HIGH BUILD, CEMENTITIOUS URETHANE COATING

PRODUCT DESCRIPTION

Sikafloor®-31 NA PurCem® is a three-component, solvent-free, high-build, pigmented, matte finish coating based on the unique Sikafloor PurCem water dispersed polyurethane/cement and aggregate technology. Typically installed as a top coat for Sikafloor PurCem systems. Can also be used as a stand alone coating on concrete surfaces. It provides an economical solution that has excellent chemical resistance properties and very good durability against abrasion and mechanical damage. Application thickness 15 - 20 mils per coat.

USES

Sikafloor®-31 NA PurCem® may only be used by experienced professionals.

- As a high build coating and finish coat for PurCem topping products.
- As a chemical resistant concrete coating.
- Typically used in food processing plants, chemical storage areas, warehouses, washrooms, laboratories, food preparation areas and chemical process plants.

CHARACTERISTICS / ADVANTAGES

- Can be applied on green concrete (typically 7 -10 days) after preparation (see surface prep section) and where substrate has tensile bond strength in excess of 218 psi (1.5 MPa).
- Can be applied to concrete substrates where < 100% relative humidity is measured as per ASTM F2170.
- Resists a very wide range of organic and inorganic acids, alkalis, amines, salts and solvents. Consult Sika Technical Service for full details. Refer to the Sika PurCem Chemical Resistance Chart.
- Non-tainting, odorless.
- Good wear resistance from a two coat application, if used as a stand-alone coating.
- Economical and easy to apply.
- Can be applied over partially cured concrete substrates (<10% surface moisture), full 28 days cure time is not necessary.
- Minimal maintenance costs, superior life cycle cost advantage versus tile.
- Achieves highest performance ratings according to ASTM G21 resistance to fungi and ASTM D3273 resistance to mold growth
- Meets the requirements of USDA for use in food plants.

PRODUCT INFORMATION

Packaging	Component A:	1 US gal (3.78 L) 8.53 lb (3.87 kg)
	Component B:	0.7 US gal (2.64 L) 7.33 lb (3.325 kg)
	Component C:	1 US gal (3.78 L) 8.53 lb (3.87 kg)
	Components A+B+C:	A+B+C: 24.38 lb (11.06 kg)
Appearance / Color	RAL 7012 Basalt Gray RAL 7038 Agate Gray RAL 7042 Traffic Grey A RAL 3009 Oxide Red	

Shelf Life	Components A+B: 1 year in original unopened packaging Component C: 6 months in original unopened packaging.	
Storage Conditions	Store dry between 50°- 77°F (10°- 25°C). Protect from freezing .	
Density	11.68 lb/US gal. (1.40 kg/L)	ASTM C905 at 73°F (23°C) and 50% R.H.

TECHNICAL INFORMATION

Shore D Hardness	80	ASTM D2240 at 73°F (23°C) and 50% R.H.
Indentation	~ 0%	MIL -PRF -24613 at 73°F (23°C) and 50% R.H.
Impact Strength	1.67 ft-lb (2.27 joules)	ASTM D2794 at 73°F (23°C) and 50% R.H.
Abrasion Resistance	S-17/1,000 cycles/1,000 g -0.10 g los H-22/1,000 cycles/1,000 g -1.57 g loss	ASTM D4060 at 73°F (23°C) and 50% R.H.
Flexural Strength	3,582 psi (24.7 MPa)	ASTM C580 at 73°F (23°C) and 50% R.H.
Tensile Strength	1,552 psi (10.7 MPa)	ASTM C307 at 73°F (23°C) and 50% R.H.
Chemical Resistance	Please consult Sikafloor Technical Services.	
Microbiological Resistance	Resistance to Fungi Growth Rated 0 (no growth) Resistance to Mold Growth Rated 10 (highest resistance)	at 73°F (23°C) and 50% R.H. at 73°F (23°C) and 50% R.H.
Water Absorption	0.07%	ASTM C 413 at 73°F (23°C) and 50% R.H.
Thermal Resistance	Pass	ASTM C884 at 73°F (23°C) and 50% R.H.
Softening Point	266°F (130°C)	at 73°F (23°C) and 50% R.H.
Pot Life	Material Temperature +50°F (10°C) +68°F (20°C) +86°F (30°C)	Time ~ 30 - 35 minutes ~ 20 - 25 minutes ~ 10 - 15 minutes
Cure Time		
Waiting / Recoat Times	Before applying sealer coat on Sikafloor-29NA PurCem allow	
	Substrate Temperature	Minimum Maximum
	+58°F (10°C)	24 hours 7 days
	+68°F (20°C)	12 hours 72 hours
	+86°F (30°C)	6 hours 48 hours

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 good bond. Prepare the surface by any appropriate mechanical means, in order to achieve a profile equivalent to ICRI-CSP 3. 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 tensile 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

Mix Ratio: Components A : B : C = Mix full units only
Mixing will be affected by temperature; condition materials for use to 65 - 75° F (18 - 24° C).

Premix Component A, make sure all pigment is evenly distributed. Empty component A into a clean pail, gradually add component C (powder) while mixing at low speed for 60-90 seconds and until all powders are wetted out. Gradually add component B (hardener) to the thoroughly mixed A and C parts and mix all components continuously and thoroughly for 3 minutes and until uniform. During the mixing operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing (Components A+B+C).

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

APPLICATION

Smooth coating: apply one to two coats of Sikafloor-31NA PurCem to the substrate using a flat squeegee, spread evenly and back roll using a 3/8" nap roller, to required thickness

Slip-resistance top coat: apply a single coat at 15-20 mils using a 3/8" nap roller, lightly broadcast the wet top coat with selected mineral aggregates (selected for texture) and back roll to encapsulate the aggregate.

Slip-resistant broadcast coating: apply a body coat of Sikafloor-31NA PurCem at a thickness of 15-20 mils, immediately broadcast the wet coating to rejection with selected mineral aggregates (selected for texture). Once the broadcast body coat has cured sufficiently to allow foot traffic, sweep and vacuum the loose unbonded aggregate. Apply a top coat at a thickness of 15-20 mils using a squeegee followed by backrolling to provide a uniform texture and finish.

Maintain a 'wet-edge' to avoid lap marks. Over-rolling and delays in the installation of mixed material may cause inconsistencies with visible lap marks in the finished floor. Beware of accelerated cure rates when applying at elevated substrate and ambient temperatures.

Maintain consistent thickness throughout the entire area. Gloss levels and visual appearance may vary depending on thickness of material applied.

LIMITATIONS

Prior to application, measure and confirm Substrate Moisture Content, Ambient Relative Humidity, 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.).

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

IMPORTANT: Product must be protected from freezing. If frozen, discard.

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. May be used below 50°F (10°C) with the addition of Sikafloor 15NA PurCem Accelerator. Refer to Sikafloor 15NA PurCem Accelerator product data sheet for complete application information.

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.

Relative Ambient Humidity: Minimum ambient humidity 30%

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. Calculate Dew Point from the substrate surface temperature, not 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. On no account should thinners be added to the mix. Adding thinners will void any applicable Sika warranty.

Application: Avoid puddles during application.

- If steam cleaning is anticipated, do not use Sikafloor-31NA PurCem as a top coat.
- 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 24 hrs.
- Color uniformity cannot be completely guaranteed from batch to batch (numbered). Take care when using Sikafloor PurCem products to draw from inventory in batch number sequence, do not mix batch numbers in a single floor area.
- Some colors may produce noticeable shade variations between Sikafloor PurCem systems (e.g. difference between floor and coving mortars). In order to achieve a uniform appearance, the use of top coats (e.g. Sikafloor-31NA) throughout entire area may be required.
- 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.
- For professional use only by experienced applicators

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.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

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.

Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at <https://usa.sika.com/en/group/SikaCorp/termsandconditions.html> or by calling 1-800-933-7452.

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Product Data Sheet

Sikafloor®-31 NA PurCem®
November 2019, Version 01.01
020814020030000013

Sikafloor-31NAPurCem-en-US-(11-2019)-1-1.pdf



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**SELF CERTIFICATION FOR CDPH STANDARD METHOD
V1.2-2017**

Pointe-Claire, 27 March 2019

To Whom It May Concern:

Attached please find a test report for CPDH Standard Method V1.2-2017 from Berkeley Analytical Labs showing Sikafloor®-31 NA Purcem has passed the VOC criteria for subject standard. Sika Canada manufactures Sikafloor-31 NA Purcem at its Pointe Claire, Quebec facility. Sika Corporation manufactures Sikafloor-31 NA Purcem at its Marion, Ohio facility.

Sika Canada and Sika Corporation maintain a Quality Management System at both the Pointe Claire and Marion facilities. Both have achieved ISO 9001 2015 certification. As part of its ongoing ISO 9001 2015 program, the Pointe-Claire and Marion facilities test finished products and incoming raw materials to insure the products produced in these facilities meet their quality requirements.

Both facilities manufacture multiple two component flooring products that are formulated from the same set of raw materials. While there may be minor differences in the exact composition of these different formulations, the raw materials from which they are produced remain the same. The following list represents the flooring products produced with the same raw materials as Sikafloor-31 NA Purcem.

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Sikafloor® -19 NA Purcem
Sikafloor® -20 NA Purcem
Sikafloor® -22 NA Purcem
Sikafloor® -24 NA Purcem
Sikafloor® -29 NA Purcem

Sika Canada and Sika Corporation choose to test Sikafloor-31 NA Purcem for CPHD Standard Method v1.2-2017 as it is the formulation having the highest potential VOC and emission content based on its chemical formula. The VOC are measure according to the EPA Method 24. Sikafloor-31 NA Purcem represents the worst case scenario of potential VOC and Emission content based on the chemical formula, therefore it is Sika's determination all of the other flooring products listed above will have less VOC and lower values for CPHD Method v1.2-2017.

Based on the above information, Sika will certify that all of the products outlined above meet the requirements of CPHD Standard Method v1.2-2017.

Please feel free to contact me, if further information is required.

Sincerely,

Steve Gosselin
Enclosure