

Sikafloor® PurCem® 31N

Solvent-free, High Build, Cementitious Urethane Coating

Description	Sikafloor PurCem 31N is a three component, solvent-free, high-build, colored, matte finish coating based on the unique Sikafloor PurCem cementitious urethane technology. Typically installed as a top coat for Sikafloor PurCem broadcast textured finishes. It provides excellent chemical resistance properties and very good durability against abrasion and mechanical damage. Installed thickness 10 mils per coat.
Where to Use	<ul style="list-style-type: none"> ■ In combination with Sikafloor PurCem 19N, 20N, 22N and 29N. ■ Typically used in food processing plants, chemical storage areas, warehouses, washrooms, laboratories, food preparation areas and chemical process plants.
Advantages	<ul style="list-style-type: none"> ■ Resists a very wide range of organic and inorganic acids, alkalis, amines, salts and solvents. Refer to the Sikafloor PurCem Chemical Resistance Chart. Consult Sika Technical Service for additional information. ■ Excellent long term wear resistance. ■ Non-taint, odorless. ■ Minimal maintenance costs, superior life cycle cost advantage versus tile. ■ Meets USDA requirements for incidental food contact.
How to Use	
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 a good bond. Prepare the surface by appropriate mechanical means, i.e., steel shotblasting or planetary grinding (CSP 3-6). The compressive strength of the concrete substrate should be at least 3,500 psi (24 MPa) at 28 days and a minimum of 250 psi (1.7 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 product. Contact Sika Technical Service for recommendations.
Priming	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.
Mixing	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 uniformly distributed. Empty Component A into a clean pail and gradually add Component C powder, mix for at least 1 min. until all powders are wetted out. Use a low speed drill (300-400 rpm) and Exomixer-type mixing paddle (recommended) suited to the size of mixing container to minimize air entrapment. Add Component B and mix all ingredients continuously and thoroughly for 3 min. During the operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once (Components A+B+C) to ensure complete mixing. <i>Mix full units only.</i>

Typical Data	
Packaging	8.75 lbs/0.7 gal, (4 kg/2.75 L) unit: 1 jug (A), 1 jug (B) and 1 jug (C) Component A: Carton containing (4)* jugs Component B: Carton containing (4)* jugs Component C: 5 lb pail * Order one carton of Part A (4 jugs per carton), one carton of Part B (4 jugs per carton) and 4 pails of Part C.
Colors	Four standard stock colors: Telegray 2 (RAL 7046) Oxide Red (3009) Agate Gray (RAL 7038) Beige (1001) Two standard, non-stocking colors that require lead time: Sky Blue (RAL 5015) Grass Green (RAL 6010) Custom colors subject to minimum order.
Yield	10 - 15 mils, 75 ft ² - 115 ft ² (7 m ² - 10.5 m ²) per unit per coat. (These figures do not allow for surface porosity, profile or wastage)
Shelf Life	Components A+B: 1 year in original unopened packaging. Component C: 6 months in original unopened packaging. Store dry between 50°-77°F (10°-25°C). Protect from freezing.
Mixing Ratio	Components A:B:C = Mix full units only.
Properties at 73°F (23°C) and 50% R.H.	
Application Temperature	45°F min., 85°F max. (7°C min., 30°C max.)



Curing Time at 68°F (20°C)	Usable pot life	20-25 min.
	Initial joint up time	25-30 min.
	Waiting time between coats	16 hrs. min./48 hrs. max
	Cure to foot traffic	14-16 hrs.
	Cure to light traffic	36-48 hrs.
	Full cure	5 days
Density (ASTM C-905)	11.68 lbs./gal. (1.40 kg/L)	
Service Temperature	-40°F (-40°C) min. / 240°F (115°C) max.	
Tensile Strength (ASTM C-307)	1,552 psi (10.7 MPa)	
Flexural Strength (ASTM C-580)	3,580 psi (24.7 MPa)	
Bond Strength (ASTM D-4541)	250 psi (1.75 MPa) (substrate failure)	
Hardness, Shore D (ASTM D-2240)	80	
Indentation MIL-PRF-24613	~ 0%	
Impact Resistance (ASTM D-2794)	1.67 ft/lbf (2.27 joules) at 1/16 in. (1 mm) of thickness	
Abrasion Resistance (ASTM D-4060)	-1.57 g	
H-22/1000 cycles/1000 g		
Coefficient of Friction (ASTM D-1894-61T)	0.5	
Water Absorption (ASTM C-413) 0	.07%	

Application	Apply using a squeegee or roller and backroll to achieve uniform coverage.
Limitations	<ul style="list-style-type: none"> ■ IMPORTANT: Product must be protected from freezing. If frozen, discard. ■ Do not apply below 45°F (7°C) or above 85°F (29°C) / maximum relative humidity 85%. ■ 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 epoxy coating or mortars. ■ Do not apply to wet or green concrete or polymer modified patches if the moisture content is > 10%. ■ Do not apply to concrete if air or substrate temperature is within 5°F (3°C) of dew point. ■ Protect substrate during application from condensation from pipes or any overhead leaks. ■ Do not mix Sika PurCem materials by hand. Mechanically mix only. ■ Avoid puddles during application. ■ Color uniformity cannot be completely guaranteed from batch to batch (numbered). Take care when using Sika PurCem products to draw from inventory in batch number sequence, do not mix batch numbers in a single floor area.
Caution	<p>A - CAUTION: IRRITANT. Contains Polyester/Polyether Polyol dispersed in water (Mixture). May cause eye/skin/respiratory irritation. May be harmful if swallowed. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.</p> <p>B - WARNING: IRRITANT, SENSITIZER. Contains Polymeric Diphenylmethane Diisocyanate (CAS 9016-87-9). Causes eye/skin/respiratory irritation. Prolonged and/or repeated contact with skin or by inhalation may cause allergic reaction/sensitization. May be harmful if swallowed.</p> <p>C - WARNING: IRRITANT, SENSITIZER. Contains Silica Quartz (CAS 14808-60-7) and Portland Cement (CAS 65997-15-1). Causes eye irritation. May cause skin/respiratory irritation. Prolonged and/or repeated skin contact may cause an allergic reaction/sensitization. May cause delayed lung damage (silicosis). May be harmful if swallowed. Deliberate misuse by inhalation of vapors may be harmful or fatal. Strictly follow all usage, handling and storage instructions.</p> <p>WARNING: This product contains a chemical known to the State of California to cause cancer.</p>
First Aid	<p>Eyes - Hold eyelids apart and flush thoroughly with water for 15 minutes. Skin - Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. Inhalation - Remove to fresh air. Ingestion - Do not induce vomiting. Dilute with water. Contact physician. In all cases contact a physician immediately if symptoms persist.</p>
Handling and Storage	<p>Avoid direct contact with eyes and skin. Wear chemical resistant gloves/goggles/clothing. Avoid breathing vapors. Use with adequate general and local ventilation. In absence of adequate ventilation, use properly fitted NIOSH approved respirator. Wash thoroughly after handling product. Store in a cool, dry, well ventilated area. Keep containers tightly closed.</p>
Clean Up	<p>Wear chemical resistant gloves/goggles/clothing. In absence of proper ventilation use properly fitted NIOSH respirator. Uncured material can be removed with approved solvent. Follow solvent manufacturer's instructions for use and warnings. Cured material (when Component 'A' combined with Component 'B' and Component 'C') can only be removed mechanically. In case of spill, ventilate area and contain spill. Collect with absorbent material (Component 'A' and Component 'B') and place in properly sealed container. Shovel Component 'C' into approved container. Dispose of in accordance with current applicable local, state and federal regulations.</p>



Industrial Flooring

The Sika logo consists of the word "Sika" in a bold, yellow, sans-serif font, positioned inside a red triangle that points downwards.

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