

PRODUCT DATA SHEET

Sikafloor®-2540 W NA

BREATHABLE, WATER-BASED EPOXY COATING FOR HIGH PERFORMANCE FLOOR FINISHES

PRODUCT DESCRIPTION

Sikafloor®-2540 W NA is a two-component, breathable, water-based, low VOC, low odour, glossy, pigmented epoxy coating available in an unlimited colour range. It cures to provide a tough, finely textured finish that will withstand light to medium-duty traffic, chemical exposure and repeated cleaning cycles.

WHERE TO USE

Sikafloor®-2540 W NA may only be used by experienced professionals.

- As a thin-film, vapour permeable pigmented coating on new and refurbished interior concrete substrates.
- As a breathable coating for concrete surfaces in chemical, pharmaceutical, food processing and preparation facilities, warehouses and workshops.
- As a wear resistant finish that will withstand contact with mildly corrosive chemicals and scrubbing during wash-down.
- As a top coat part of the Sikafloor Resoclad MRW Type II & III Mechanical Room Waterproofing Systems.

CHARACTERISTICS / ADVANTAGES

- Water-based, Low VOC, ideal for interior application without disruption to ongoing operations
- Able to withstand light to medium-duty traffic (i.e. pedestrians and light handling equipment on pneumatic tires)
- Good resistance against mild corrosive chemicals, wear factors and scrubbing while being cleaned
- Breathable - permeable to water vapour
- Unlimited colours, no minimums required
- Aesthetic, glossy, fine textured finish with excellent opacity

ENVIRONMENTAL INFORMATION

Potential of contribution towards LEED®v4 credits.
Contact Sika Canada

APPROVALS / CERTIFICATES

Meets the requirements of CFIA and USDA for use in food plants

PRODUCT INFORMATION

CSC MasterFormat®	09 67 00 FLUID-APPLIED FLOORING	
Packaging	Component A:	7.57 L (2 US gal.)
	Component B:	11.36 L (3 US gal.)
	Components A+B:	18.9 L (5 US gal.) unit
Appearance / Colour	Special colours available on request.	
Shelf Life	1 year in original, unopened packaging.	
Storage Conditions	Store & transport dry at temperatures between 5 °C to 32 °C (41 °F to 89 °F).	

Protect from freezing and high temperatures; discard if frozen.
Condition product at temperatures between 18 °C to 30 °C (65 °F to 86 °F) before using.

Solid content by weight	~61.5 % (+/- 5 %) - Depending upon colour	
Volatile organic compound (VOC) content	~6 g/L	
Viscosity	~2000 cps mixed / depending upon colour	(ASTM D2196)

TECHNICAL INFORMATION

Shore D Hardness	~80	(ASTM D2240)
Abrasion Resistance	~0.118 g (~0.004 oz)	(ASTM D4060) (CS-17) 1000 cycles/1000 g
Elongation at Break	~2.8 %	(ASTM D638)
Pull-Off Strength	> 2.0 MPa (> 290 psi) (concrete failure)	(ASTM D7234)
Resistance to Impact	~0.331 joules (~0.45 ft lb)	(ASTM D2794)
Chemical Resistance	Chemical Resistance Consult Sika Canada	
Water Absorption	~6.85 % (24 hours)	(ASTM C413)
Permeability to Water Vapour	~3.9 Perm at 10 mil d.f.t.	(ASTM E96 - Procedure B)
Coefficient of Friction	~0.30 Wet (smooth)	ANSI A326.3 /BOT 3000e

APPLICATION INFORMATION

Mixing Ratio	A:B = 2:3 by volume
Consumption	Approximately 4 m ² /L to 5 m ² /L (163 ft ² /US gal. to 203 ft ² /US gal.) at 8 to 10 mil w.f.t. / 4 to 5 mil d.f.t. per coat Two (2) coats recommended for optimum service. Note: Actual coverage rates and material consumption will depend upon porosity and profile of substrates. Allowance must be also made for variation in film thickness or number of coats required to achieve complete coverage of surfaces. Test sections are recommended to establish correct coverage.
Product Temperature	Condition product between 18 °C to 24 °C (65 °F to 75 °F)
Ambient Air Temperature	Minimum 10 °C (50 °F) Maximum 30 °C (85 °F)
Relative Air Humidity	Maximum 75 % (during application and curing). Sikafloor®-2540 W NA should not be applied when the ambient air relative humidity is > 75% as curing times will be longer and water will be retained in the film reducing ultimate coating performance. Provide adequate fresh air ventilation to remove the excess moisture from the curing product.
Dew Point	Substrate must be at least 3 °C (5 °F) 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.
Substrate Temperature	50°F (10°C) min./86°F (30°C) max.

Substrate Moisture Content

Moisture content of concrete substrate must be $\leq 6\%$ by mass (pbw— part by weight) as measured with a Tramex® CME/CMEX type concrete moisture meter on mechanically prepared surface according to this product data sheet (preparation ICRI / CSP 2-3). ASTM F2170 testing is not a substitute for measuring substrate moisture content. Use a Tramex® CME/CMEX type concrete moisture meter as described above.

Minimum age of concrete: 28 days depending on curing and drying conditions.

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 for a visual indication of vapor drive.

Pot Life	Temperature	Time	(250 g (8.8 oz))
	10 °C (50 °F)	~1 hour	
	23 °C (73 °F)	~30 minutes	
	30 °C (86 °F)	~25 minutes	

Curing Time	Substrate Temperature	Foot Traffic	Light Traffic	Normal Traffic
	10 °C (50 °F)	~36 hours	~3 days	~5 days
	23 °C (73 °F)	~18 hours	~36 hours	~3 days
	30 °C (86 °F)	~12 hours	~30 hours	~2 days

Full Cure: ~7 days at 23 °C (73 °F).

NOTE: Drying times will vary according to air and substrate temperature and relative humidity.

Freshly applied material should be protected from dampness, condensation and water for at least 24 hours

Waiting Time / Overcoating	Temperature	Minimum	Maximum
	10 °C (50 °F)	~18 hours	~72 hours
	23 °C (73 °F)	~10 hours	~48 hours
	30 °C (86 °F)	~7 hours	~24 hours

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

Properties tested at 23 °C (73 °F) and 50 % R.H. unless stated otherwise.

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 three (3) hours, or more frequently whenever conditions change (e.g. Ambient Temperature rise / fall, Relative Humidity increase / decrease, etc.).
- Product will discolour over time when exposed to sunlight (UV) and under certain artificial lighting conditions.
- Typically not recommended for exterior slabs on grade

where freeze/thaw conditions may exist.

- Do not apply Sikafloor®-2540 W NA 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® or Sikalastic® systems must be non-reactive and oven-dried
- May be incompatible with certain existing coatings. Consult with Sika Canada for guidance before specifying or application and carry out trial sections.
- Do not apply to substrates exposed to extreme thermal shock.
- Not recommended for use on surfaces which are exposed to highly corrosive chemicals or heavy wear.
- Direct-fired gas or kerosene heaters produce by-products that can have adverse effects on the curing product. To avoid this occurrence, heaters must be exhausted to the exterior of the building to avoid defects such as amine blush, whitening, loss of adhesion or other surface deficiencies.

- Beware of air flow and changes in air flow. Introduction of dust, debris, and particles, etc. may result in surface imperfections and other defects.
- Published Dynamic Coefficient of Friction (DCOF) wet and dry test results are approximate values based on laboratory test samples produced in a controlled environment following the application instructions published on the product data sheet. Resin flooring products are hand-applied finishes subject to minor variations in surface texture due to influences partly beyond Sika Canada's control. Substrate profile, environmental conditions, variable regional aggregate size, shape and gradation, aggregate distribution, uniformity of applied resin mil thickness, and application technique can all affect the final DCOF test results achieved. Adequate provision should be made by the client throughout the selection and installation process to ensure the finished surface texture meets the end user's traction requirements.

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

SURFACE PREPARATION

Concrete surface must be dry, clean and sound. Remove any dust, laitance, grease, oil, dirt, curing agents, impregnations, wax, foreign matter, coatings and detritus from the surface by appropriate mechanical means, in order to achieve a profile equivalent to ICRI / CSP 2 - 3. Concrete compressive strength should be at least 25 MPa (3625 psi) at 28 days and at least 1.5 MPa (218 psi) in tension at the time of Sikafloor®-2540 W NA application. For other substrates, please contact Sika Canada.

MIXING

Mixing Ratio - A:B = 2:3 by volume

Do not hand mix Sikafloor® materials. Mechanical mixing only.

Do not thin this product. Addition of thinners (e.g. water, solvent, etc.) will slow cure and reduce ultimate properties of this product. Use of thinners will void any applicable Sika warranty. Improper mixing procedure or incorrect mixing ratio may result in moisture sensitivity, whitening, slow cure, soft spots, and other defects. Pre-stir each component to ensure all soft settling is dispersed, solids are evenly distributed and even colours and consistencies are achieved within each component. Empty Component A (Resin) in the correct mix ratio into B (Hardener). Mix the combined components for at least three (3) minutes using a low speed drill (300 - 450 rpm) and Exomixer® or Jiffy type paddle suited to the volume of the pail to minimize entrapped air. Be careful not to

introduce any air bubbles while mixing. Make sure the contents are completely mixed to avoid any weak or partially cured spots in the coating. During the mixing operation, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing. When completely mixed, Sikafloor®-2540 W NA should be uniform in colour and consistency.

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

APPLICATION

Apply coating by squeegee at the rate of 4 m²/L to 5 m²/L (163 ft²/US gal. to 203 ft²/US gal.) at 8 - 10 mil wet film thickness (w.f.t.) and back-roll with pressure using a high quality (lint-free) roller. Coverage will vary depending on the porosity of the prepared floor.

Note: If the Waiting/Recoat time is passed (refer to Technical Data section) the previous coat must be lightly sanded, to remove all gloss; vacuum cleaning and solvent wiping will be necessary to remove all traces for dust. The surface should be a uniform dullness, with no gloss present after clean-up and before applying the next coat.

CLEAN UP

Once hardened, product can only be removed mechanically. Clean tools and brushes with Sika® Epoxy Cleaner.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local

Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

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