



PRODUCT DATA SHEET

Sikafloor® Fastflor CR

SOLVENT-FREE, CHEMICAL-RESISTANT, FAST-CURE, EPOXY FLOOR COATING

PRODUCT DESCRIPTION

Sikafloor® Fastflor CR is a two-component, fast-cure, solvent-free, low-VOC, wide-range chemical resistant epoxy resin binder and coating available in unlimited colours. Typically installed as a seamless, high build, smooth coating for light to medium duty traffic areas or as a broadcast surfacing that increases abrasion and impact resistance against aggressive wear. Final surface appearance option include : unlimited colour selection, integral cove base and variable surface texture to produce a range of slip-resistant improved traction finishes.

WHERE TO USE

Sikafloor® Fastflor CR may only be used by experienced professionals.

- Excellent protection for new or old concrete and properly prepared steel surfaces.
- For areas requiring resistance to severe chemical attack and abrasion.
- Suitable for use in direct exposure and secondary containment areas in manufacturing facilities, warehouses, laboratories, dairies, breweries, chemical plants, paper mills, food processing and pharmaceutical manufacturing (for specific chemical resistance refer to Sika's Chemical resistance Guide).

CHARACTERISTICS / ADVANTAGES

- Excellent protection for new or old concrete and properly prepared steel surfaces
- Available in unlimited colour range with no minimum quantities required
- Fast curing: ideal for quick turnaround projects
- Excellent wide-range chemical resistance
- Superior abrasion and impact resistance
- Durable, impermeable and seamless surface
- Easily cleaned and maintained
- Low-VOC contents and low odour

ENVIRONMENTAL INFORMATION

Conformity with LEED® v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations

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	11 L (2.91 US gal.) unit
Shelf Life	2 years in original, unopened packaging.

Storage Conditions	Store dry at temperatures between 5 °C to 32 °C (41 °F to 89 °F).	
Appearance / Colour	Standard: RAL 7038 Agate Grey Custom colours available with no minimum quantities required.	
Viscosity	A+B: ~1400 cps (mixed)	(ASTM D2393)
Volatile organic compound (VOC) content	~1.5 g/L	

TECHNICAL INFORMATION

Shore D Hardness	~85	(ASTM D2240)
Abrasion Resistance	~120 mg (0.0042 oz)	(ASTM D4060) Wheel CS-17/1000 g (2.2 lb)/1000 cycles
Elongation at Break	~6.5%	(ASTM D638)
Pull-Off Strength	> 2.7 MPa (> 392 psi) (concrete failure)	(ASTM D7234)
Coefficient of Friction	~0.54 Wet (smooth coating)	ANSI A326.3 /BOT 3000e
	~0.70 Wet (broadcast coating)	
Chemical Resistance	Consult Sika Canada	

APPLICATION INFORMATION

Mixing Ratio	A:B = 2:1 by volume	
Consumption	Smooth Coating (23 mil total thickness)	
	Prime coat (8 mil)	5 m ² /L (203 ft ² /US gal.)
	Body coat (15 mil)	2.6 m ² /L (106 ft ² /US gal.)
	Broadcast Coating (2 mm total thickness)	
	Prime coat (8 mil)	5 m ² /L (203 ft ² /US gal.)
	Broadcast coat (35 mil)	1.1 m ² /L (45 ft ² /US gal.)
	Aggregate	Silica sand # 32 (spherical) 0.3 mm to 0.85 mm
	Top coat (10 mil)	4 m ² /L (163 ft ² /US gal.)
	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 opacity with light (i.e. white) or bright colours (i.e. reds and yellows) on dark substrates. 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 85% (during application and curing)	
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	Minimum 10 °C (50 °F) Maximum 30 °C (85 °F). Mixing and application attempted at material, ambient and/or substrate temperature conditions less than 18 °C (65 °F) will result in a decrease in product workability and slower cure rates.	

Substrate Moisture Content

Moisture content of concrete substrate must be $\leq 4\%$ (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 ICRI / CSP 3 - 4).

Do not apply to concrete substrate with moisture levels $> 4\%$ (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter. If moisture content of concrete substrate exceeds 4% (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter, use Sikafloor®-1610 or Sikafloor®-81 EpoCem®CA or Sikafloor® 22NA or 24 NA PurCem®.

When relative humidity tests for concrete substrate are conducted per ASTM F2170 for project specific requirements, values must be $\leq 85\%$. If values exceed 85% according to ASTM F2170, use Sikafloor®-1610 or Sikafloor®-81 EpoCem®CA or Sikafloor® 22NA or 24 NA PurCem®.

ASTM F2170 testing is not a substitute for measuring substrate moisture content with a Tramex® CME/CMExpert type concrete moisture meter as described above.

Pot Life	350 g (12.3 oz)	23 °C (73 °F)
	Open time in pot	~30 minutes
	Open working time	~20 minutes
Curing Time		23 °C (73 °F)
	Foot traffic	~8 hours
	Vehicular traffic	~16 hours
	Full cure	~5 days
	Curing times will vary according to air and substrate temperatures and relative humidity. Protect from dampness, condensation and water contact during the initial 24 hour cure period. Mechanical, chemical and physical properties will be fully achieved at full cure.	
Waiting Time / Overcoating		23 °C (73 °F)
	Minimum	~5 hours
	Maximum	~48 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 the following: substrate moisture content, ambient relative humidity, ambient and surface temperature and dew point. During installation, confirm and record above values at least once (1) every three (3) hours, or more frequently whenever conditions change (e.g. ambient temperature rise/fall, relative humidity increase/decrease, etc.).
- Do not apply while ambient and substrate temperatures are rising, as pinholes may occur. Ensure there is no vapour drive at the time of application. Refer to ASTM D4263, may be used for a visual indication of vapour drive.
- Do not apply Sikafloor® to concrete substrate containing aggregates susceptible to ASR (Alkali Silica Reaction) due to risk of natural alkali redistribution below the Sikafloor® product after application. If concrete substrate has or is suspected to have ASR (Alkali Silica Reaction) present, do not proceed. Consult with design professional prior to use.
- Do not apply to polymer modified cement mortars (PCC) that may expand when sealed with an impervious resin.
- Any aggregate used with Sikafloor® systems must be non-reactive and oven-dried.
- This product is not designed for negative side waterproofing.

- Not recommended for exterior slabs on grade where freeze/thaw conditions may exist.
- Not suitable for exterior direct sunlight exposure as surface may discolour; use for interior walls and floors only.
- Not recommended for areas subject to frequent thermal cycles.
- The influence of colour selection should be allowed for in material consumption/coverage. Light or bright colours may require higher wet film thicknesses or additional coats to achieve desired opacity. Consult Sika Canada for guidance at time of colour selection.
- Direct-fired gas or kerosene heaters produce by-products that can have adverse effects on the curing resin. 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.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

The surface must be clean, dry and sound. Remove dust, laitance, grease, oil, dirt, curing compounds, impregnations, waxes, foreign particles, coatings and disintegrated particles by any appropriate mechanical means, in order to achieve a profile equivalent to ICRI / CSP 3 - 4. 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® Fastflor CR

application.

MIXING

Mix Ratio - A:B = 2:1 by volume

Do not hand mix Sikafloor® materials. Mechanically mix only.

Do not thin this product. Addition of thinners (e.g. water, solvent, etc.) will slow cure and reduce ultimate properties of this product. Use of thinners will void any applicable Sika® warranty.

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® Fastflor CR should be uniform in colour and consistency. Mix only that quantity you can use within its pot life.

APPLICATION

Smooth Coating

Prime Coat: Apply the prime coat onto the substrate using a brush, roller or squeegee, at a uniform coverage without ponding.

Body Coat: Once the prime coat is tack-free, apply the body coat using a squeegee or roller and back roll to achieve even coverage.

Broadcast Coating

Prime Coat: Apply the prime coat onto the substrate using a brush, roller or squeegee, at a uniform coverage without ponding.

Broadcast Coat: Once the prime coat is tack-free, apply the broadcast coat onto the substrate using a notched squeegee or trowel. Level out and back roll to achieve an even coverage. Broadcast the selected aggregate (sand size selected for texture) into the broadcast coat to rejection.

Top Coat: Once the broadcast coat has sufficiently cured to allow foot traffic, sweep-up and remove by vacuum any and all loose or un-bonded sand. Apply the top coat using a squeegee, followed by back rolling to provide a uniform texture and finish.

Note: If the Waiting/ Recoat time has 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 of dust. The surface should be a uniform dullness, with no gloss present after clean-up and before applying the next coat.

CLEAN UP

Clean all tools and equipment immediately after use with Sika® Epoxy Cleaner. Once hardened, the product can only be removed mechanically.

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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Product Data Sheet

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