



PRODUCT DATA SHEET

Sikafloor®-353

WATER BASED CLEAR ALIPHATIC POLYURETHANE FLOOR AND WALL COATING

PRODUCT DESCRIPTION

Sikafloor®-353 is a two-component, clear, low VOC, low odour, water based aliphatic polyurethane coating formulated to provide excellent abrasion and chemical resistance. It has superior UV resistance to colour change and produces a durable, easy to clean smooth finish. Sikafloor®-353 is available in three gloss levels; gloss, satin, and matte.

WHERE TO USE

Sikafloor®-353 may only be used by experienced professionals.

Sikafloor®-353 is high performance floor and wall coating typically applied in the following areas:

- Hospitals and medical research facilities.
- Pharmaceutical laboratories and production areas.
- Veterinarian and animal holding areas.
- Educational and recreational premises.
- Commercial kitchens and service corridors.
- Food and beverage processing areas.
- Packaging and storage areas.
- Rest rooms, locker rooms and showers.

PRODUCT INFORMATION

CSC MasterFormat®

09 96 00 | HIGH-PERFORMANCE COATINGS

Packaging

Component A	15.14 L (4 US gal.) packaged in a 20 L pail
Component B	3.78 L (1 US gal.) packaged in a 3.78 L can
Component A+B:	18.92 L (5 US gal.) Unit

CHARACTERISTICS / ADVANTAGES

- Advanced water based technology.
- Superior UV resistance to colour change, non-yellowing.
- Aesthetic, water-clear smooth finish.
- Low-VOC / very low odour.
- Waterproof, suitable for wet in-service areas.
- Excellent abrasion and chemical resistance.
- Durable, impermeable, and seamless.
- Easily cleaned and maintained.

APPROVALS / CERTIFICATES

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

Shelf Life	1 year in original, unopened packaging under proper storage conditions.
Storage Conditions	Store dry at temperatures between 5 °C to 32 °C (41 °F to 89 °F). Protect from freezing. If frozen, discard. Precondition material for at least 24 hours between 18 °C to 30 °C (65 °F to 86 °F) before use.
Appearance / Colour	Clear / (not intended for field pigmentation)
Solid content by volume	~49% to ~51% (dependent on gloss)
Volatile organic compound (VOC) content	< 25 g/L (mixed)

TECHNICAL INFORMATION

Shore D Hardness	~78	ASTM D2240
Abrasion Resistance	~-0.0671g	(ASTM D4060) CS-17 /1000 g (2.2 lbs.)/1000 cycles
Tensile Strength in Flexure	> 4.5 MPa (> 652 psi) (concrete failure)	ASTM D4541
Tensile Strength	~18 MPa (~2,610 psi)	(ASTM D638)
Elongation at Break	~14%	ASTM D638
Pull-Off Strength	> 2.5 MPa (> 363 psi) (substrate failure)	(ASTM D7234)
Water Absorption	~4.25% (24 hr) ~4.86% (7 days)	ASTM D570
Chemical Resistance	Consult Sika Canada.	

APPLICATION INFORMATION

Mixing Ratio	A:B = 4:1 by volume
Consumption	6.4 m ² /L (260 ft ² /US gal.) at 6 mil (w.f.t.) per coat. 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 30 °C (65 °F to 86 °F) before use.
Ambient Air Temperature	Minimum 15 °C (59 °F) Maximum 30 °C (86 °F). Low temperatures and/or high humidity will increase curing time.
Relative Air Humidity	Maximum 75% (during application and curing). Sikafloor®-353 should not be applied when the Relative Humidity is greater than 75 % as curing times will be longer and water will be retained in the film reducing ultimate coating performance. IMPORTANT: Water-borne products require moisture to evaporate from the film to cure to full properties. 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	Minimum 15 °C (59 °F) Maximum 30 °C (86 °F).			
Substrate Moisture Content	Moisture content of concrete substrate must be ≤ 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 ICRI / CSP 3 - 4). If moisture content of concrete substrate exceeds 4 % by mass (pbw – part by weight) as measured with Tramex® CME / CMExpert type concrete moisture meter, use Sikafloor®-1610 or Sikafloor®-81 EpoCem®CA. ASTM F2170 internal probe testing is not a substitute for measuring substrate moisture content with a Tramex® CME / CMExpert type concrete moisture meter as described above. When relative humidity tests for concrete substrate are conducted per ASTM F2170 for project specific requirements, values must be ≤ 85 %. If values exceed 85 %, according to ASTM F2170, use Sikafloor®-1610 or Sikafloor®-81 EpoCem®CA.			
Pot Life	Material Temperature 20 °C (68°F)	Time ~60 minutes		
Curing Time	Ambient & Substrate Temperature	Foot traffic	Light traffic	Full cure
	50 °F (10 °C)	~ 48 hours	~ 4 days	~ 5 days
	73 °F (23 °C)	~ 16 hours	~ 22 hours	~ 36 hours
	86 °F (30 °C)	~12 hours	~ 16 hours	~ 24 hours
	<ul style="list-style-type: none"> ▪ Curing times will vary according to ambient air and substrate temperatures and relative humidity. ▪ Freshly applied material should be protected from dampness, condensation and water for at least 24 hours. ▪ Mechanical, chemical and physical properties will be fully achieved at full cure. 			
Waiting Time / Overcoating	Ambient & Substrate Temperature	Time		
	50 °F (10 °C)	~ 48 hours		
	73 °F (23 °C)	~ 12 hours		
	86°F (30 °C)	~ 6 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.).

- Typically not recommended for exterior slabs on grade where freeze/thaw conditions may exist.
- Do not apply Sikafloor®-353 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.
- This product is not designed for negative side waterproofing.

- May be incompatible with certain existing coatings. Consult with Sika Canada for guidance before specifying or application and carry out trial sections.
- When over-coating existing coatings, compatibility and adhesion testing is recommended and existing coating must be acknowledged as determining the adhesion and performance of all subsequently applied materials.
- 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.
- Apply product to dry, clean, properly cured and prepared surfaces in areas where dust is no longer generated by construction activities such that airborne particles will not reduce bond of coating or adhere to the surface, affecting the quality of subsequently applied finishes.

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

Concrete surfaces 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 on walls and CSP 3 - 4 on floors. 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®-353 application. For other substrates, please contact Sika Canada.

MIXING

Mixing Ratio (A:B) = 4:1 by volume.

Do not hand mix Sikafloor®-353 materials; mechanically mix only.

Pre-stir each component to ensure all soft settling is dispersed, solids are evenly distributed 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 (200 - 300 rpm) and Exomixer® or Jiffy type paddle suited to the volume of the mixing container to minimize entrapped air. Be

careful not to introduce any air bubbles while mixing. Make sure the contents are completely mixed to avoid any weak or partially cured spots in the coating. During the mixing operation, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing.

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

APPLICATION

Sikafloor®-353 can be applied by brush, roller or spray equipment, whichever is the most suitable to the surfaces to be coated or site conditions and limitations. For spray applications, contact spray equipment specialists to determine suitable equipment and for application advise.

Sikafloor®-353 must be applied in a workman-like manner using skilled and trade-qualified applicators. The film thicknesses stated must be produced and complete coverage achieved. Coverage rate will vary depending on the porosity of the prepared substrate.

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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Product Data Sheet

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