BUILDING TRUST
CONSTRUIRE LA CONFIANCE

PRODUCT DATA SHEET

Sikagard®-352 W

Water-based, pigmented, aliphatic polyurethane floor and wall coating

PRODUCT DESCRIPTION

Sikagard®-352 W is a two-component, pigmented, 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. Sikagard®-352 W is available in three gloss levels; gloss, satin, and matte.

WHERE TO USE

Sikagard®-352 W is typically applied in:
- 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

CHARACTERISTICS / ADVANTAGES

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

APPROVALS / CERTIFICATES

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

PRODUCT INFORMATION

Packaging	Component A	15.14 L (4 US gal) - packaged in a 20 L pail
	Component B	3.78 L (1 US gal) can
	Component A+B	18.92 L (5 US gal) unit
Appearance / Colour	Pigmented, available in Gloss White and custom colors	
Shelf Life	1 year in original, unopened packaging under proper storage conditions	
Storage Conditions	Store dry at temperatures between 5 °C and 32 °C (41 °F and 89 °F). Protect from freezing. If frozen, discard. Condition material for at least 24 hours at temperatures between 18 °C and 30 °C (65 °F and 86 °F) before use.	

Volatile organic compound (VOC) content	< 25 g/L (mixed)
CSC MasterFormat®	**09 96 00 | HIGH-PERFORMANCE COATINGS**

TECHNICAL INFORMATION

Shore D Hardness	~78	ASTM D2240
Abrasion Resistance	~-0.0671 g	(ASTM D4060) CS-17 wheel / 1000 g (2.2 lb) / 1000 cycles
Tensile Strength in Flexure	>4.5 MPa (>652 psi) (concrete failure)	ASTM D4541
Tensile Strength	~19 MPa (~2755 psi)	ASTM D638
Resistance to Fire	0 (FSR) Flame Spread Rating 10 (SDC) Smoke Developed Classification	(CAN/ULC S102)
Chemical Resistance	Consult Sika Canada	
Water Absorption	~3.77 % (24 hours) ~3.85 % (7days)	ASTM D570

APPLICATION INFORMATION

Mixing Ratio	A:B = 4:1 by volume
Consumption	12.8 to 7.68 m²/L (520 to 312 ft²/US gal) at 3 - 5 mil (w.f.t.) per coat - Two (2) coats recommended. **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	Before using, condition product between 18 °C and 30 °C (65 °F and 86 °F).
Ambient Air Temperature	Minimum 10 °C (59 °F) / Maximum 30 °C (86 °F) **Note:** Low temperatures and/or high humidity will increase curing time.
Relative Air Humidity	Maximum 75 % (during application and curing) **Note:** Do not apply Sikagard®-352 W when the Relative Humidity exceeds 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 evapourate 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 10 °C (59 °F) / Maximum 30 °C (86 °F) **Note:** 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.

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 (ICRI / CSP 2 - 3 on walls and CSP 3 - 4 on floors). 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®-1620, Sikagard®-75 EpoCem® CA, or Sikafloor®- 81 EpoCem® CA (moisture dependant).

Note: 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®-1620, Sikagard®-75 EpoCem® CA, or Sikafloor®-81 EpoCem® CA (moisture dependant).

Pot Life

Material Temperature	Time
20 °C (68 °F)	~60 minutes

Curing Time

Ambient & Substrate Temperature	Foot traffic	Light traffic	Full cure
10 °C (50 °F)	~48 hours	~4 days	~5 days
20 °C (68 °F)	~16 hours	~22 hours	~36 hours
30 °C (86 °F)	~12 hours	~16 hours	~24 hours

Remarks:

- 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
10 °C (50 °F)	~48 hours
23 °C (73 °F)	~12 hours
30 °C (86 °F)	~6 hours

Note: If the Waiting/ Recoat time has passed 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.

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.

LIMITATIONS

- Do not apply to concrete substrate containing aggregates susceptible to ASR (Alkali Silica Reaction) due to risk of natural alkali redistribution below the 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 use for exterior slabs on grade where freeze/thaw conditions may exist.
- Do not use for negative side waterproofing.
- Do not apply to substrates exposed to extreme thermal shock.
- Do not use on surfaces which are exposed to highly corrosive chemicals or heavy wear.

As well, Sika® recommends that:

- That 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 (ex.: Ambient temperature rise/fall, relative humidity increase/decrease, etc.).
- To apply Sikagard®-352 W to dry, clean, properly cured and prepared surfaces, in areas where construction work no longer generates dust, so that airborne particles do not reduce the adhesion of the coating or adhere to the surface, which would affect the quality of the finishes applied subsequently.
- That any aggregate used with Sikagard®-352 W must be non-reactive and oven-dried.
- That although Sikagard®-352 W may be incompatible with certain existing coatings. Contact Sika Canada before specifying an application in writing. When over-coating existing coatings, compatibility and adhesion testing is mandatory and existing coating must be acknowledged as determining the adhesion and performance of all subsequently applied materials.
- That direct-fired gas or kerosene heaters produce by-products can have adverse effects on the curing product. To avoid this occurrence, direct 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.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Concrete surfaces must be dry, clean and structurally sound.

SUBSTRATE PREPARATION

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 Sikagard®-352 W application.
For other substrates, contact Sika Canada.

MIXING

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

Sikagard®-352 W must only be mixed mechanically; manual mixing is not permitted.

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 (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 (pot life) at the actual field temperature.

APPLICATION

Sikagard®-352 W must be applied by skilled and trade-qualified applicators.

Sikagard®-352 W 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.

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

Uncured material can be removed from equipment and tools using Sika Cleaning Wipes or a solvent, such as xylene. Strictly follow solvent manufacturer's warnings and instructions for use. Cured material can only be removed manually or 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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