

PRODUCT DATA SHEET

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CSC Master Format™ 09 67 00
FLUID-APPLIED FLOORING

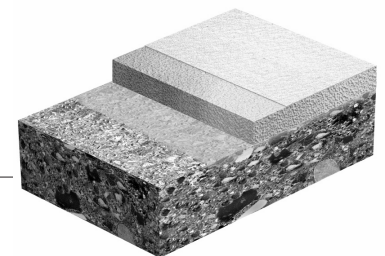
Sikafloor® Morritex® Self-Levelling Broadcast System

SELF-LEVELLING/BROADCAST SURFACING OF 3 - 6 MM (1/8 - 1/4 IN)

Description Sikafloor® Morritex® Self-Levelling Broadcast System is a solid colour, high gloss, textured, resin rich, aggregate extended, seamless, epoxy based floor coating. The incorporation of durable, fine aggregate into the matrix during mixing significantly increases the liquid resin volume during application with out sacrificing physical properties. This reduces the overall neat resin cost associated with thicker self-levelling coatings, maximizes resin economy allowing thicker applications that ultimately extend the coatings service life against aggressive wear. Additional selected aggregate (selected for texture) are broadcast on to the wet resin during application to produce an aggregate surface texture with improved scratch resistance. Typically installed in medium to heavy duty traffic areas, this general service epoxy coating demonstrates good chemical resistance as well as high abrasion and impact resistance. Final surface appearance options include: unlimited colour selection, integral cove base, gloss, satin or matte surface sheen and variable surface texture to produce a range of slip-resistant improved traction finishes.

- Where to Use**
- Beverage processing areas.
 - Cafeterias.
 - Dairies.
 - Garbage rooms.
 - Laundry rooms.
 - Heavy duty manufacturing areas.
 - Meat, fish & poultry packaging areas.
 - Photo processing & printing shops.
 - Traffic aisles.

- Advantages**
- High abrasion and impact resistance.
 - Good chemical resistance.
 - Durable, impermeable and seamless.
 - Does not support growth of bacteria or fungus.
 - Low VOC content, neutral odour.
 - Unlimited colours, no minimum required.
 - Variable surface texture to produce a range of slip-resistant improved traction finishes.
 - Achieves high performance ratings according to ASTM G21 resistance to fungi and ASTM D3273 resistance to mold growth (special order grade).
 - Conformity with LEED® v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations.
 - Meets the requirements of CFIA and USDA for use in food plants.



Self-Levelling/Broadcast Surfacing

Technical Data		
Packaging	Sikafloor®-261 ^{CA}	10 L and 30 L (2.6 and 7.9 US gal.) units
Colour	Refer to the Industrial Flooring and Coatings colour card.	
	RAL 7038 Agate Grey	RAL 5007 Brilliant Blue
	RAL 7030 Stone Grey	RAL 6028 Pine Green
	RAL 1001 Beige	RAL 7012 Basalt Grey
	RAL 1018 Zinc Yellow	RAL 9003 Signal White
	RAL 3010 Brick	
	<i>Custom colours available upon request. Refer to current price list for availability.</i>	
Yield		
Prime coat	Sikafloor®-261 ^{CA}	5 m ² /L (200 ft ² /US gal.) (8 mils w.f.t.)
Self-levelling Broadcast coat	Sikafloor®-261 ^{CA}	0.5 - 0.66 m ² /L (20 - 25 ft ² /US gal.) (60 - 80 mils w.f.t.)
Broadcast silica sand		10 L (A+B) unit + 10 L silica sand # 70 = 20 L
		5 - 10 kg/m ² (1 - 2 lb/ft ²)
		# 32 medium (spherical) 0.3 - 0.85 mm
		# 16 coarse (angular) 0.6 - 2.0 mm
Top coat	Sikafloor®-261 ^{CA}	2 - 4 m ² /L (80 - 160 ft ² /US gal.) (10 - 20 mils w.f.t.)
	<i>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.</i>	
Shelf Life	2 years in original unopened packaging. Store dry between 5 and 32 °C (41 and 89 °F). Condition at 18 to 30 °C (65 to 86 °F) before using.	
Mix Ratio	A:B = 2:1 by volume (prime coat and top coat)	
	A:B:C = 2:1:3 by volume (self-levelling broadcast coat)	
Service Temperature	Min.	0 °C (32 °F)
	Max.	50 °C (122 °F)
	Short term exposure	100 °C (212 °F)

	10 °C (50 °F)	20 °C (68 °F)	30 °C (86 °F)
Open Time on Substrate (min)	~ 80	~ 50	~ 35
Waiting Time Between Coats (hrs) (min./max.)	~ 30/72	~ 8/48	~ 6/24
Curing Time (days)			
Foot traffic	~ 2	~ 1	~ 18 hrs
Light traffic	~ 4	~ 2	~ 2
Normal traffic/Chem. exp.	~ 10	~ 7	~ 5
Properties at 23 °C (73 °F) and 50 % R.H.			
Specific Gravity ASTM D1475 kg/L (lb/US gal.)	A: B: A+B: A+B:		~ 1.52 (12.6) ~ 1.01 (8.39) ~ 1.40 (11.6) ~ 550 cps
Viscosity			~ 35-45 min
Pot Life, 250 g (8.8 oz)			~ 56 MPa (8122 psi)
Compressive Strength ASTM C579			~ 11 MPa (1595 psi)
Tensile Strength ASTM C307			~ 3.1%
% Elongation			> 2 MPa (290 psi) (substrate failure)
Bond Strength CSA/CAN23.2-6B			Passes
Thermal Compatibility ASTM C884			~ 5.1 MPa (739 psi)
Flexural Strength ASTM C580			~ 3.3 GPa (478 625 psi)
Mod. of Elasticity			~ 4.0 %
Indentation MIL-PRF-24613			~ 2.03 joules (1.49 ft lb _i)
Impact Resistance ASTM D2794			~ 0.07 g (0.0024 oz)
Abrasion Resistance ASTM D4060 CS17/1000 cycles/1000 g (2.2 lb)			~ 0.73 (wet) (#32 medium- spherical)
Dynamic Coefficient of Friction (DCOF) ANSI A137.1 / ANSI A326.3 / BOT 3000e			~ 20 mm (0.78 in)
Flammability ASTM D635			~ 0.53 x 10 ⁻⁴ mm/mm/°C (0.29 x 10 ⁻⁴ in/in/°F)
Coefficient of Thermal Expansion ASTM D696			~ 0.3 %
Water Absorption ASTM C413			Rated 1 (traces of growth)
Resistance to Fungi Growth ASTM G21			Rated 10 (highest resistance)
Resistance to Mold Growth ASTM D3273			Binder: < 50 g/L - Aggregate: 0 g/L
VOC Content			Consult Sika Canada
Chemical Resistance			

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.

HOW TO USE

Surface

Preparation

The concrete surface must be clean and sound. Remove any dust, laitance, grease, oil, dirt, curing agents, impregnations, wax, foreign matters, coatings and detritus from the surface by appropriate mechanical means, in order to achieve a profile equivalent to ICRI-CSP 3-5. The compressive strength of the concrete substrate 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 application of Sikafloor®-261^{CA} primer.

Mixing

Prime Coat - Top Coat

Mix Ratio: Components A:B 2:1 by volume

Pre-mix each component separately. Empty component B in the correct mix ratio to component A. Mix the combined components for at least three (3) minutes, using a low-speed drill (300 - 450 rpm) to minimize entrapping air. Use an *Exomixer*® type mixing paddle (recommended model) suited to the volume of the mixing container. Mix only that quantity which can be used within its pot life.

Self-Levelling Broadcast Coat:

Mix Ratio: Components A:B:C 2:1:3 by volume

Pre-mix each component separately. Empty component B in the correct mix ratio to component A. Mix the combined components for at least three (3) minutes, using a low-speed drill (300 - 450 rpm) to minimize entrapping air. Use an *Exomixer*® type mixing paddle (recommended model) suited to the volume of the mixing container. Add silica sand (component C) to the blended components A and B. Mix for three (3) minutes once all ingredients are combined, using the above mentioned mixer. During the mixing operations, 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®-261^{CA} should be uniform in colour and consistency. Mix only that quantity which can be used within its pot life.

Application

Prime Coat: Apply the prime coat using a squeegee and backroll. Avoid puddling.

Self-Levelling Broadcast Coat: Once the prime coat is tack-free, apply the self-levelling coat onto the substrate using a notched squeegee or trowel. Level out and de-air using a spiked roller. Broadcast the selected sand (selected for texture) into the self-levelling basecoat to rejection.

Top Coat: Once the broadcasted self-levelling coat has sufficiently cured to allow foot traffic, sweep-up and vacuum the loose unbonded sand. Apply the top coat using a squeegee, followed by backrolling to provide a uniform texture and finish.

Clean Up

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

Limitations

- Sikafloor® Morritex® SL Broadcast is best installed by skilled and experienced applicators. Consult Sika Canada for advice and recommendations.
- 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.)
- 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 - 5). Do not apply to concrete substrate with moisture levels exceeding 4 % mass (pbw– part by weight) as measured with Tramex® CME / CMExpert type concrete moisture meter. 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 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.
- Material temperature: Precondition material for at least 24 hours between 18 to 24 °C (65 to 75 °F)
- Ambient and substrate temperature - Minimum / Maximum: 10 / 30 °C (50 / 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.
- Maximum ambient relative humidity: 85 % (during application and curing).
- Beware of condensation! The 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.
- Do not hand mix Sikafloor® materials. Mechanically mix only.
- 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.
- Freshly applied material should be protected from dampness, condensation and water for at least 24 hours.
- Will discolour over time when exposed to sunlight (UV) and under certain artificial lighting conditions.
- 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.
- Any aggregate used with Sikafloor® systems must be non-reactive and oven-dried.
- This product is not designed for negative side waterproofing
- Typically not recommended for exterior slabs on grade where freeze/thaw conditions may exist.
- Do not apply to substrates exposed to extreme thermal shock.
- Direct-fired gas or kerosene heaters produce by-products that can have adverse effects on curing. 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
- 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.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

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, within their shelflife. 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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