Sikafloor® Morritex Trowel System

SCREED MORTAR OF 3 - 6 MM (1/8 - 1/4 IN)

Description
Sikafloor® Morritex Trowel System is a solid colour, high gloss, resin-rich, aggregate-filled, seamless, epoxy based floor resurfacer with high density and compressive strength for exceptional durability. Typically installed to protect new concrete or re-profile existing worn floors at a thickness range of 3 - 6 mm (1/8 - 1/4 in). This heavy duty, general service epoxy system demonstrates good chemical resistance as well as superior abrasion and impact resistance. Sikafloor® Morritex Trowel System can be customized to meet aesthetic and slip-resistance requirements. 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 finishes.

Where to Use
- Animal care facilities.
- Beverage processing.
- Commercial kitchens-wet and dry processing areas.
- Factories-light to heavy duty manufacturing areas.
- Health care facilities.
- High traffic aisles.
- Laboratories.
- Locker and shower rooms.
- Production lines.
- Garbage rooms.
- Garage service bays.
- Wash bays.

Advantages
- Superior mechanical resistance.
- High abrasion and impact resistance.
- Good chemical resistance.
- Aesthetic finish.
- Durable, impermeable and seamless.
- Easily cleaned, maintained and a more sanitary work environment.
- Does not support growth of bacteria or fungus.
- Neutral odour.
- Unlimited colours, no minimum required.
- Achieves high performance ratings according to ASTM G21 resistance to fungi and ASTM D3273 resistance to mold growth (special order grade).
- Canadian Food Inspection Agency acceptance/USDA acceptance.

Technical Data

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Sikaflow®-156 CA 10 L and 30 L (2.6 and 7.9 US gal.) units</th>
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</thead>
<tbody>
<tr>
<td>Sikaflow®-261 CA 10 L and 30 L (2.6 and 7.9 US gal.) units</td>
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<tr>
<td>Sikaflow®-156 CA Clear Amber</td>
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<tr>
<td>Sikaflow®-261 CA</td>
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Refer to the Industrial Flooring and Coatings colour card.

- RAL 7038 Agate Grey
- RAL 7030 Stone Grey
- RAL 1001 Beige
- RAL 1018 Zinc Yellow
- RAL 3010 Brick
- RAL 5007 Brilliant Blue
- RAL 6028 Pine Green
- RAL 7012 Basalt Grey
- RAL 9003 Signal White

Custom colours available upon request. Refer to current price list for availability.

<table>
<thead>
<tr>
<th>Yield</th>
<th>Sikaflow®-156 CA 4 m²/L (160 ft²/US gal.) (10 mils w.f.t.) (Optional: thicken with Extender &quot;T&quot; or silica flour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime coat</td>
<td>Sikaflow®-156 CA 10 L and 30 L (2.6 and 7.9 US gal.) units</td>
</tr>
<tr>
<td>Screed mortar</td>
<td>Sikaflow®-156 CA A+B + Sika® Aggregate PT (3.0:1.0 = 4.0 L) - 2 x 20 kg Sika® Aggregate PT</td>
</tr>
<tr>
<td>Grout coat and top coat</td>
<td>Sikaflow®-261 CA 2 - 4 m²/L (80 - 160 ft²/US gal.) (10 - 20 mils w.f.t.)</td>
</tr>
</tbody>
</table>

Actual coverage rates and material consumption will depend upon porosity and profile of substrates. Allowance must be 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.

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.

CSC Master Format® 09 67 00
FLUID-APPLIED FLOORING
Mix Ratio
A:B = 3:1 by volume
Service Temperature
Min. 0 °C (32 °F)
Max. 50 °C (122 °F)
Short term exposure 100 °C (212 °F)
Open Time on Substrate (min)
Sikafloor®-156CA 70
Sikafloor®-261CA 80
Waiting Time Between Coats (hrs)
Prime coat/Screed mortar (max.) 24
Screed mortar/Grout coat (min.) 24
Grout coat/Top coat (min./max.) 30/72
Curing Time
Foot traffic (hrs) Sikafloor®-156CA 24
Sikafloor®-261CA 48
Light traffic (days) Sikafloor®-156CA 5
Sikafloor®-261CA 4
Normal traffic/Chem. exp. (days) 10

Properties at 23 °C (73 °F) and 50 % R.H.
Specific Gravity ASTM D1475
A: 1.121 (9.34) 1.52 (12.6)
B: 1.017 (8.47) 1.01 (8.39)
A+B: 1.097 (9.14) 1.40 (11.6)
Viscosity
A+B: 260 cps 550 cps
Pot Life, 250 g (8.8 oz) (min) 35 - 40
Compressive Strength ASTM C579
91 MPa (13 198 psi)
Tensile Strength ASTM C307
6 MPa (870 psi)
% Elongation
1.9%
Bond Strength ASTM D4541
> 2 MPa (290 psi) (substrate failure)
Thermal Compatibility ASTM C884
Passes
Flexural Strength ASTM C580
28 MPa (4061 psi)
Modulus of Elasticity
10.3 GPa (1 493 891 psi)
Indentation MIL-PRF-24613
0.35%
Impact Resistance ASTM D2794
2.8 joules (2.0 ft lb)
Abrasivity Resistance ASTM D4060
CS17/1000 cycles/1000 g (2.2 lb) 0.17 g (0.0059 oz)
Coefficient of Friction
Steel 0.35
ASTM D1894-61T
Rubber 0.95
Flammability ASTM D635
3 mm (1/8 in)
Coefficient of Thermal Expansion ASTM D696
0.39 x 10^-6 mm/mm/°C (0.21 x 10^-4 in/in/°F)
Water Absorption ASTM C413
0.3 %
Resistance to Fungi Growth ASTM G21
Rated 1 (traces of growth)
Resistance to Mold Growth ASTM D3273
Rated 10 (highest resistance)

Note: Physical properties test results based on heavy-duty system.

HOW TO USE
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 3-9. 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®-156CA primer.

Mixing (Prime Coat - Screed Mortar - Grout/Top coat)
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 size of the mixing container.

Screed Mortar: Transfer the mixed binder (A+B) into a suitable Kol type motor driven mixer. Gradually add aggregates (component C) to the binder to avoid excessive air entrapment. Once all ingredients are combined, mix continuously and thoroughly for 3 minutes to ensure complete mixing. During the mixing operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once (A+B and A+B+C) to ensure complete mixing. Mix only that quantity which can be used within its pot life.

Sikafloor® Morritex Trowel System
CSC Master Format™ 09 67 00
FLUID-APPLIED FLOORING
**Application**

Light to Medium Duty System: 3 - 6 mm (1/8 - 1/4 in)
Prime Coat: Apply the primer using a squeegee and backroll to provide uniform coverage.
Note: Mortar must be placed on wet primer, if primer becomes tack-free, re-prime substrate.

Screed Mortar: Maintain all control joints and expansion joints through the screed where movement is expected. Place mortar onto the wet primer surface and spread the mortar to the appropriate thickness using a large wood float, rake or screed box. Allow loose mortar to stand for a few minutes to permit entrapped air to escape. Using a float or stainless steel finishing trowel, uniformly compact and smooth the surface. Areas around drains, elevation changes or terminations must fold into a squared, keyed edge to maintain a minimum 3 mm (1/8 in) thickness. Do not feather edge.

Top Coat: (optional) when the epoxy mortar screed has sufficiently cured to allow foot traffic, apply a top coat of Sikafloor®-261CA thickened with 1-2% by weight of Sikafloor® Extender T. Uniformly apply the top coat using a squeegee and backroll to the desired finish. A slip-resistant, sand texture can be achieved by lightly seeding the wet top coat with selected mineral aggregates. Immediately backroll the seeded Sikafloor®-261CA surface to encapsulate the aggregate.
Note: This system is not fully sealed throughout the entire screed matrix. Sika does not recommend this method of application for areas subject to high impact or chemical attack; use the heavy-duty, fully sealed system detailed below.

Heavy-Duty System: 6 mm (1/4 in)
Prime Coat: Apply the primer using a squeegee and backroll to provide uniform coverage.
Note: Mortar must be placed on wet primer, if primer becomes tack-free, re-prime substrate.

Screed Mortar: Maintain all control joints and expansion joints through the screed where movement is expected. Place mortar onto the wet primer surface and spread the mortar to the appropriate thickness using a large wood float, rake or screed box. Allow loose mortar to stand for a few minutes to permit entrapped air to escape. Using a float or stainless steel finishing trowel, uniformly compact and smooth the surface. Areas around drains, elevation changes or terminations must fold into a squared, keyed edge to maintain a minimum 6 mm (1/4 in) thickness. Do not feather edge.

Grout Coat: (mandatory) when the epoxy mortar screed has sufficiently cured to allow foot traffic, apply a neat grout coat of Sikafloor®-261CA. Apply using a squeegee or trowel to force the epoxy into surface pores and backroll immediately to remove ridges.

Top Coat: (mandatory) when the epoxy grout coat has sufficiently cured to allow foot traffic, apply a top coat of Sikafloor®-261CA. Uniformly apply the top coating using a squeegee and backroll to the desired finish. A slip-resistant sand texture can be achieved by lightly seeding the wet top coat with selected mineral aggregates. Immediately backroll the seeded Sikafloor®-261CA surface to encapsulate the aggregate.

**Clean Up**
Clean all tools and equipment with Sika® Epoxy Cleaner. Once hardened, product can only be removed mechanically. Wash soiled hands and skin thoroughly in hot soapy water or use Sika® Hand Cleaner towels.

**Limitations**
- Minimum/Maximum substrate temperature 10°C/30°C (50°F/86°F).
- Maximum relative humidity during application and cure: 85%.
- Substrate temperature must be 3°C (5.5°F) above the measured dew point.
- Moisture content of the substrate must be < 4% when coating is applied or use Sikafloor®-81 EpoCem®CA.
- Do not apply to porous surfaces where moisture vapour transmission will occur during application.
- Not suitable for use on exterior, slab-on-grade concrete substrates.
- Protect from dampness, condensation and water contact during the initial 24 hour cure period.
- 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 Technical Services immediately for guidance at time of colour selection.
- Surface may discolor in areas exposed to ultraviolet light, use Sikafloor® Duochem-942 (Clear or Coloured) as a seal coat if required or contact Sika Canada prior to specification or application for advice.
- Do not hand-mix Sikafloor® materials; mechanical-mix only.

**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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