Sikafloor® Marine 18
Adjustable Primary Deck Covering Mortar

Technical Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>Chemical base</td>
<td>Polymer modified cement mortar</td>
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<tr>
<td>Colour</td>
<td>Grey</td>
</tr>
<tr>
<td>Cure mechanism</td>
<td>Hydraulic</td>
</tr>
<tr>
<td>Water addition rate (cold, potable) per 28 kg bag</td>
<td>3.2-3.7 litres</td>
</tr>
<tr>
<td>Density fresh mixed (CQP 1 599-3)</td>
<td>1.9 g/cm³ approx.</td>
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<tr>
<td>Density cured (CQP 599-4)</td>
<td>1.8 g/cm³ approx.</td>
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<tr>
<td>Substrate temperature</td>
<td>5-35°C (40-95°F)</td>
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<tr>
<td>Application thickness</td>
<td>5-25 mm</td>
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<tr>
<td>Coverage per 28 kg bag (layer thickness 1 mm)</td>
<td>17 m² approx.</td>
</tr>
<tr>
<td>Working time (CQP 599-9)</td>
<td>30 minutes approx.</td>
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<tr>
<td>Ready to walk on (CQP 600-3)</td>
<td>depending on humidity and ventilation 24 hours approx.</td>
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<tr>
<td>Compressive strength (CQP 599-2)</td>
<td>18 MPa approx.</td>
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<tr>
<td>Flexural strength (CQP 599-1)</td>
<td>8 MPa approx.</td>
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<tr>
<td>Modulus of elasticity in compression (CQP 599-6)</td>
<td>2 GPa approx.</td>
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<tr>
<td>Linear shrinkage (CQP 599-5)</td>
<td>0.08% approx.</td>
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<tr>
<td>Shelf life (CQP 600-1) Stored in a cool, dry place below 25°C (75°F)</td>
<td>12 months</td>
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Product Description
Sikafloor® Marine 18 is a normal weight polymer modified cementitious mortar used as a primary deck covering or as a constrained layer in the PK 90 N system. Sikafloor® Marine 18 is manufactured in accordance with ISO 9001 / 14001 quality assurance and tested according to FTP Code system and approved according to the IMO Marine Equipment Directives.

Product Benefits
- Easily applicable levelling mortar
- Low E-Modulus
- One component, ready to mix
- Also suitable for sloped surfaces
- Pumpable

Areas of Application
This mortar is applied on interior decks, to level the surface prior to the application of deck finishing materials such as: carpets, tiles, parquet, rubber and vinyl. It is suitable for application in wet and dry accommodation areas.

For wet areas prior to tiles application, the substrate has to be additionally treated with a water resistant membrane (e.g. Sikafloor® Marine Elastic). Before application of vinyl and carpet coverings, we recommend to apply a thin self levelling mortar such as Sikafloor® Marine 100 to obtain an even floor. This product is suitable for professional experienced users only. Tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.
Cure Mechanism
Sikaflow® Marine 18 cures by way of hydraulic curing.

Method of Application
Surface preparation
The surface has to be clean, free from dust, grease, oils and other substances, which may impair the adhesion. Rust has to be removed completely with a steel brush or other appropriate means, followed by vacuum cleaning.

The surface has to be primed with water based Sikaflow® Marine Primer-C using a long hair roller. After the drying of the primer Sikaflow® Marine 18 may be applied.

For the application of Sikaflow® Marine 18 on aluminium or zinc rich shop primer coated decks, a tie coat of Sika ZP-primer or another suitable tie coat is required prior the priming step with Sikaflow® Marine Primer-C.

In case of using Sikaflow® Marine 18 as constrained layer do not apply Sikaflow® Marine Primer-C.

For further information please contact the Technical Service Department of Sika Industry.

Mixing process
One bag Sikaflow® Marine 18 is mixed with approx. 3.2 to 3.4 litres of cold, potable water. The mixing time is approx. 3 minutes at low speed (with drilling machine) or with a cement mixer for larger amounts until a homogenous mortar is obtained. Adjust the consistency of the mortar with maximum 0.3 L. of potable water. If mixed by hand ensure the powder is mixed completely (bottom and side walls of the bucket).

Application
Apply the mortar with a steel board or a straight edge.

Sikaflow® Marine 18 has to be applied within 30 minutes after mixing. At temperatures above 35°C the open time will be reduced to 20 minutes or less.

For advice on selecting and setting up a suitable pump system please contact the System Engineering Department of Sika Industry.

Curing
After application, the finished areas should be protected against direct heat (e.g. cutting or welding from beneath), sunlight and draught during the curing process for at least one day after application.

Before covering Sikaflow® Marine 18 with dense materials such as vinyl, epoxy coatings, etc., ensure that the remaining moisture level is below 4%.

Test procedure to determine the dryness (according ASTM D 4263)
- put a PE-plastic foil 1 m x 1 m on the surface of the applied mortar floor
- tape the perimeter and leave for one day

The curing is complete if there is no water condensation on the foil or a visible colour difference between covered and uncovered surface.

Removal
Excess material can best be removed before curing with a trowel wipe. Uncured Sikaflow® Marine 18 may be removed from tools and equipment with water. Once cured, the material can only be removed mechanically. Exposed hands and skin should be washed immediately with water. It is recommended to use a suitable skin protection hand cream.

Further Information
Copies of the following publications are available on request:
- Material Safety Data Sheet
- Application Guide Sikaflow® Marine 18

Packaging Information
Bag 28 kg

Value Bases
All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Health and Safety Information
For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Material Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

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 written recommendations, or from any other advice offered. The user of the product must test the product’s suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. 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.