

Sikafloor® Marine 18

Primary deck covering mortar

Typical Product Data

Chemical base	Polymer modified cement mortar
Color	Grey
Cure mechanism	Hydraulic
Water addition rate (cold, potable)	per 28 kg bag 3.1 - 3.7 liters (105 – 125 oz)
Density fresh mixed (CQP ¹ 599-3)	1.9 g/cm ³ (15.8 lb/gal)
Density cured ² (CQP 599-4)	1.8 g/cm ³ (15.0 lb/gal)
Substrate temperature	5 - 35° C (40 - 95° F)
Application thickness	5 - 25 mm (0.2 – 1.0 in)
Coverage per 28 kg bag (layer thickness 1 mm (0.04 in))	17 m ² (180 ft ²)
Working time ³ (CQP 599-9)	30 minutes
Ready to walk on ³ (CQP 600-3)	depending on humidity and ventilation 24 hours
Compressive strength ⁴ (CQP 599-2)	18 MPa (2600 psi)
Flexural strength ⁴ (CQP 599-1)	8 MPa (1200 psi)
Modulus of elasticity in compression ⁴ (CQP 599-6)	2 GPa (300 ksi)
Linear shrinkage ⁴ (CQP 599-5)	0.08 %
Shelf life (CQP 600-1) Stored in a cool, dry place below 25° C (77° F)	12 months

¹⁾ Corporate Quality Procedure ²⁾ After 7 days ³⁾ 23° C (73° F) / 50% R.H. ⁴⁾ After 28 days

Description

Sikafloor® Marine 18 is a polymer modified cement based 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.

Sikafloor® Marine 18 is also part of the visco-elastic systems Sikafloor® Marine PK-90 N and Sikafloor® Marine VEM.

Product Benefits

- Easily applicable leveling mortar
- Low E-Modulus
- One component, ready to mix
- Also suitable for sloped surfaces
- Can be pumped

Areas of Application

Sikafloor® Marine 18 is applied on interior (wet and / or dry) decks, to level the surface prior to the application of deck finishing materials such as: carpets, tiles, parquet, rubber and vinyl.

For wet areas the surface has to be treated with a water resistant membrane (e.g. Sikafloor® Marine Elastic).

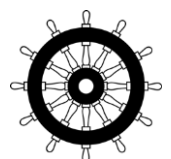
Before application of vinyl and carpet coverings, we recommend to apply a thin self-leveling mortar such as Sikafloor® Marine 100 to obtain an even floor.

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.

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, label and Safety Data Sheet, which are available on request at tsmh@us.sika.com. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instructions for each Sika product as set forth in the current Product Data Sheet, label and Safety Data Sheet prior to product use.

Industry



Cure Mechanism

Sikafloor® 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 Sikafloor® Marine Primer-C using a long hair roller. After the drying of the primer, Sikafloor® Marine 18 may be applied.

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

In the case of using Sikafloor® Marine 18 as a constrained layer, do not apply Sikafloor® Marine Primer-C.

For further information please contact the Technical Department of Sika Industry at tsmh@us.sika.com.

Mixing process

One bag of Sikafloor® Marine 18 is mixed with 3.1 to 3.4 liters (105 to 115 oz) 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 a maximum 0.3 liters (10 oz) 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.

Sikafloor® Marine 18 has to be applied within 30 minutes after mixing. At temperatures above 35° C (95° F), 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 Systems 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 Sikafloor® Marine 18 with dense materials such as 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 (40 in x 40 in) 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 color difference between covered and uncovered surface.

Removal

Excess material can best be removed before curing with a trowel wipe.

Uncured Sikafloor® 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:

- Safety Data Sheet
- Application Guide Sikafloor® Marine 18
- Application Guide Sikafloor® Marine VEM

Packaging Information

Bag	28 kg
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Basis of Product Data

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 Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

Limited Product Warranty

Sika Corporation warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. **NO OTHER WARRANTIES IMPLIED OR EXPRESS SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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Further information available at:
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