BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor® Marine-599

Self-leveling decorative resin

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties		Sikafloor® Marine-599 (A)	Sikafloor® Marine-599 (B)
Chemical base		Polyurethane	Isocyanate
Colour (CQP001-1)	mixed	Coloured	Transparent
		Various colours available (see colour design chart)	
Density		1.5 kg/l	1.2 kg/l
	mixed	1.4 kg/l	
Solid content		100 %	
Mixing ratio	by weight	75 : 25	
Application temperature	substrate / climate	15 – 30 °C [A, B]	
Shore A hardness (CQP023-1 / ISO 48-4)		84	
Tensile strength (DIN 53504)		8 MPa	
Elongation at break (DIN 53504)		65 %	
Pot-life	10 °C	120 minutes	
	20 °C	90 minutes	
	30 °C	45 minutes	
Shelf life		9 months [C]	12 months [C]

CQP = Corporate Quality Procedure
[A] substrates must be 3 °C above the dew point
[B] max. 80 % r.h.
[C] stored in sealed container in up-right position in a dry place between 5 and 30 °C, protected from direct sunlight

DESCRIPTION

Sikafloor® Marine-599 is a self-levelling aliphatic 2-component polyurethane decorative floor resin. It is part of the Sikafloor® Marine Deco system for exterior use.
If Sikafloor® Marine-599 needs to be accelerated, Sikafloor® Marine-001 or -002 can be used.

PRODUCT BENEFITS

- Good application characteristics
- Very UV stable (non yellowing)
- Decorative designs solutions
- Very low VOC emission
- Solvent-free
- Longterm elastic
- Acceleration option available

AREAS OF APPLICATION

Sikafloor® Marine-599 is designed as a part of the Sikafloor® Marine Deco systems as synthetic teak decking solution for external decks in shipbuilding, cruise and leisure boat construction.
This product is suitable for experienced professional users only.
Tests with actual substrates and conditions have to be performed ensuring workability, adhesion and material compatibility.

CURE MECHANISM
The curing of Sikafloor® Marine-599 takes place by a chemical reaction of the two components.
Higher temperatures speed up and lower temperatures slow down the curing process.

CHEMICAL RESISTANCE
For advice contact the Technical Department of Sika Industry.

METHOD OF APPLICATION
Surface Preparation
Sikafloor® Marine-599 is installed on top of the deck levelling compound.
Metallic decks need to be prepared to SA 2.5 (ISO 8501). Aluminum decks must not be shot blasted. The prepared metallic surfaces need to be clean, free of dirt, grease, oil and loose particles before the SikaCor® ZP Primer is applied.
The application area must be protected against weather and direct sunlight.

Mixing process
Prior to mixing, stir part A. Add part B and mix continuously for 2 minutes until a homogeneous mix has been obtained.
Pour material into another container and mix again for at least 1 minute.
Use double mixing paddles not higher than 300 rpm to minimize air entrapment.
The curing time of Sikafloor® Marine-599 can be significantly shortened, by adding Sikafloor® Marine-001/-002 accelerators. The mixing procedure is the same as for the non-accelerated version, except that the accelerator is added 1 minute after start mixing A and B.
For further information regarding accelerators, check the API - Sikafloor® Marine-001/-002 or contact the Technical Department of Sika Industry.
For areas with cambers or slopes between 1 % and 3 % use Sikafloor® Marine Liquid PU Thickener. The dosage is between 1 % and 2 % in weight depending on the actual situation. For areas with higher cambers it may be required to add additional 1 % to 2 % of Sika® Extender T or Aerosil by weight to the mix. Alternatively, it is possible to reduce the layer thickness and apply multiple layers.
Note: By increasing the viscosity de-airing properties can be affected.
For liquid applied floors it is recommended to use Sikafloor® Marine-001/-002 to accelerate the curing and reduce the amount of flow.

Application
Sikafloor® Marine-599 is poured and spread evenly by means of a notched trowel, flat trowel or pin-rake. In critical areas a spike roller can be used to improve levelling and de-airing. For deeper sections (e.g. unevenness), it might be necessary to pre-level these sections. Ensure the pre-leveled sections have achieved "foot traffic" cure level prior to proceeding.
For liquid application on cambers and slopes multiple applications steps may be needed. Curing speed depends on temperature and layer thickness. Always consider the pot life to keep a wet edge.
Prior to application, always consult the most current Application Manual.

Curing
Indications regarding curing details see table below.

Temperature	Foot traffic	Light traffic [A]	Full cure
10 °C	30 hours	48 hours	6 days
20 °C	16 hours	24 hours	4 days
30 °C	12 hours	18 hours	3 days

A) food trolleys and light rolling equipment on soft wheels

Removal
Uncured Sikafloor® Marine-599 can be removed from tools and equipment with Sika® Colma Cleaner or another suitable solvent. Once cured, the material can only be removed mechanically.
Hands and exposed skin have to be washed immediately using hand wipes such as Sika® Cleaner-350H or a suitable industrial hand cleaner and water.
Do not use solvents on skin.

Application Limits
Freshly applied Sikafloor® Marine-599 must be protected from moisture, condensation and water for at least 1 day. Uncured material reacts in contact with water (foaming).

STORAGE CONDITIONS
Both components of Sikafloor® Marine-599 have to be kept between 5 °C and 30 °C in a dry place. Do not expose it to direct sunlight. After opening of the packaging, the contents need to be protected against moisture.
Minimum temperature during transportation is 5 °C.

FURTHER INFORMATION
The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Industry.
Copies of the following publications are available on request:
- Safety Data Sheets
- API (Additional Product Information) Sikafloor® Marine-001/002

PACKAGING INFORMATION
Sikafloor® Marine-599 (A)

Pail	15 kg

Sikafloor® Marine-599 (B)

Pail	5 kg

Sikafloor® Marine-001/002

Bottle	0.28 kg

BASIS OF PRODUCT DATA
All technical data stated in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

HEALTH AND SAFETY INFORMATION
User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

DISCLAIMER

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