

# APPLICATION MANUAL

## Sikafloor® Marine VEM Steel Vertical

APRIL 2023 / VERSION 01 / SIKA SERVICES AG



## HEALTH AND SAFETY EQUIPMENT

Use protection gear according to the most current Safety Data Sheet.

## REQUIREMENTS (PRECONDITIONS AND ACTIONS)

The following requirements are essential and mandatory to create acoustic systems, use this application manual in conjunction with the current Product Data Sheet.

- Application may only be performed by trained professional applicators and contractors.
- Steel or Aluminum bulkhead must be treated with anti-corrosion coat; or paint system referring to the actual project specification.
- On zinc-rich primed metal or bare aluminum bulkheads it is required to apply the SikaCor® ZP Primer prior any application.
- The area must be protected from weather conditions.
- Ensure that access to the application area is restricted to the installation team.
- Ambient and substrate temperature needs to be between 5 °C and 30 °C.
- Do not apply Sikafloor® Marine products if the relative humidity is above 80 %.

## SYSTEM BUILD UP / COVERAGE

	Sikafloor® Marine VEM X			Electro galvanized steel tiles		
Thickness	1 mm	2 mm	3 mm	1.5 mm	2 mm	3 mm
Size	n.a.			310 x 150 mm		
Weight per m <sup>2</sup>	1.3 kg/m <sup>2</sup>	2.6 kg/m <sup>2</sup>	3.9 kg/m <sup>2</sup>	12 kg/m <sup>2</sup>	16 kg/m <sup>2</sup>	24 kg/m <sup>2</sup>

For the electrogalvanized steel plates (tiles), always consider that the practical consumption is related to the application and the complexity of the area (pipe penetrations, columns, etc.). Therefore, it is recommended to not consider the gaps between the plates but to calculate the coverage of steel as 100 % of the area. For the Sikafloor® Marine VEM X always consider that the practical consumption is related to application, bulkhead deviations (tolerances), etc. It is recommended to add 10 % to the theoretical consumption to cover the mentioned factors.

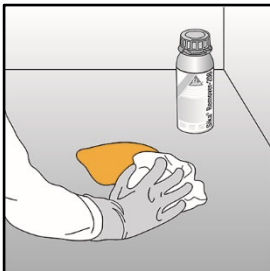
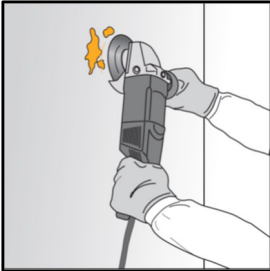

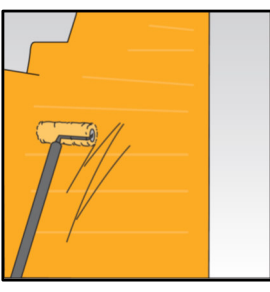
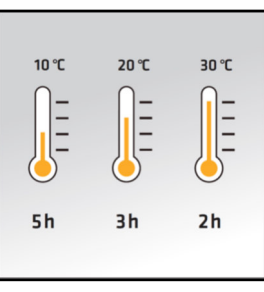
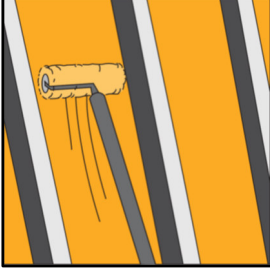
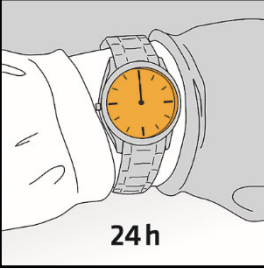
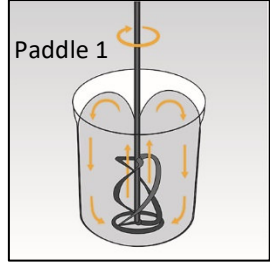
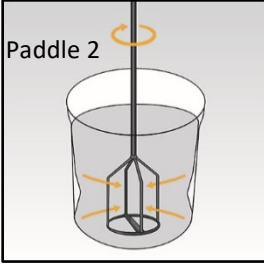
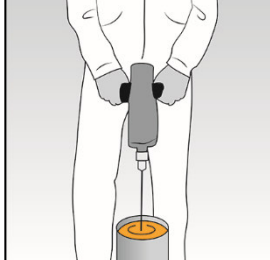
## ADDITIONAL INFORMATION

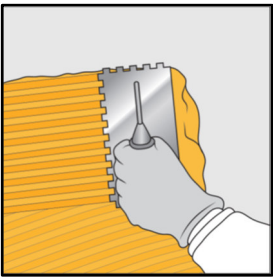
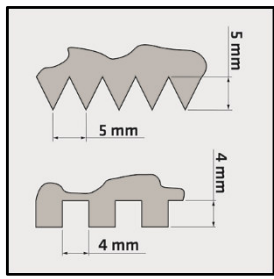

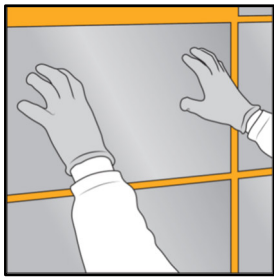
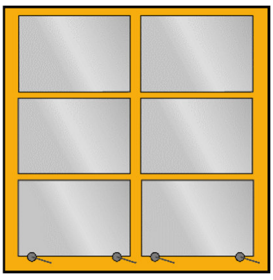
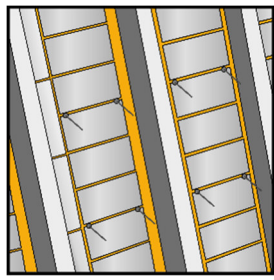
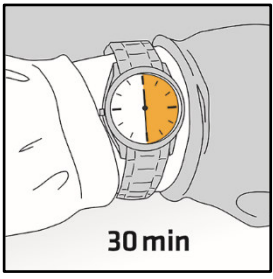
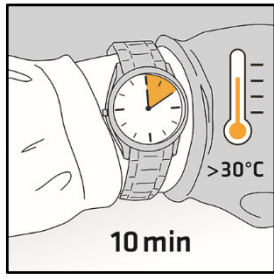
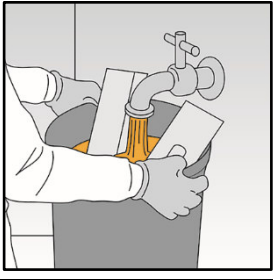
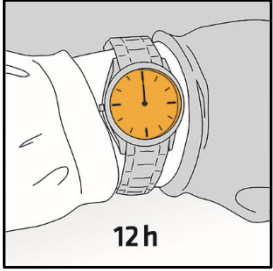
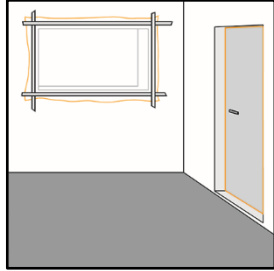
For most current versions of IMO approvals and other Marine certificates contact your local Sika representative.

The individual Product Data Sheet shall prevail over this “Application Manual”.

All conditions stated in the individual Product Data Sheet regarding application, storage, etc. shall continue to apply.

# APPLICATION STEPS

<h1>1</h1>	<p>If substrate is contaminated such as oil, grease etc. remove contaminates from metal surfaces with solvents such as Sika® Remover-208 or water-based cleaners.</p> <p><b>Note:</b> Replace dirty rag frequently and dispose of it according to national regulations.</p>												
<h1>2</h1>	<p>Remove rust, loose paint and particles with a rotating handheld grinder from the substrate.</p> <p>Sweep bigger particles with a broom and dust with a vacuum cleaner.</p>												
<h1>3</h1>	<p>Only in case of zinc-rich primed metal or bare aluminum substrates: Apply SikaCor® ZP Primer with a long hair roller between the stiffeners or on the flat bulkhead cross rolled and let it dry.</p> <p>Flash off time SikaCor® ZP Primer (80µm)</p> <p>10 °C – 5 hours                  20 °C – 3 hours                  30 °C – 2 hours</p> <p><b>Note:</b> Consumption about 200 – 250 g/m<sup>2</sup></p>												
<h1>4</h1>	<p>Apply Sikafloor® Marine Primer C with a long hair roller between stiffeners or on the flat bulkhead and let it dry until milky bluish aspect has changed to transparent.</p> <p><b>Note:</b> Consumption about 75 – 100 g/m<sup>2</sup></p> <p><b>IMPORTANT:</b> The maximum waiting time is 24 hours.</p>												
<h1>5</h1>	<table border="1" data-bbox="279 1361 925 1534"> <thead> <tr> <th>Mixing paddle type 1</th> <th>Mixing paddle type 2</th> </tr> </thead> <tbody> <tr> <td>10-15 kg; Ø 100mm</td> <td>5-15 kg; Ø 90mm</td> </tr> <tr> <td>15-25 kg; Ø 120mm</td> <td>15-25 kg; Ø 120mm</td> </tr> <tr> <td>20-40 kg; Ø 140mm</td> <td>25-35 kg; Ø 150mm</td> </tr> <tr> <td>30-60 kg; Ø 160mm</td> <td>35-50 kg; Ø 160mm</td> </tr> </tbody> </table> <p>Mixer Type and diameter required to mix the defined volume</p> <p>Use the remaining water to adjust the consistency</p>	Mixing paddle type 1	Mixing paddle type 2	10-15 kg; Ø 100mm	5-15 kg; Ø 90mm	15-25 kg; Ø 120mm	15-25 kg; Ø 120mm	20-40 kg; Ø 140mm	25-35 kg; Ø 150mm	30-60 kg; Ø 160mm	35-50 kg; Ø 160mm		
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<h1>6</h1>	<p>Put the lower amount of the cold potable water in a bucket and add one bag of Sikafloor® Marine VEM X.</p> <p>Mix with mixing paddle (approx. 400 rpm) for about 5 minutes until a homogeneous mortar is obtained.</p> <p>Use the remaining water to adjust the consistency.</p> <p><b>Note:</b> 16 kg bag ⇒ 4 – 4.6 liter of potable water</p>												

7	<p>Apply the Sikafloor® Marine VEM X, with an appropriate notched trowel (square 4 x 4 mm or in triangular shape 5 x 5 mm). Ensure that the final layer (after installing the plates) is between 1 and 3 mm thick.</p> <p><b>IMPORTANT:</b> Apply enough material to ensure a full wetting of the steel plates.</p>		
8	<p>Install the steel plates on the Sikafloor® Marine VEM X by following the shape of the bulkhead by using adequate pressure, ensure a good wetting and work the plates into the product.</p> <p>The distance between the plates must not exceed 12 mm.</p> <p><b>IMPORTANT:</b> Do not apply steel plates over welding seams.</p>		
9	<p>Insulation pins must be welded on the bulkhead for every 3 rows of plates. This can be done prior to or during application of the Sikafloor® Marine VEM X and steel plates.</p> <p><b>IMPORTANT:</b> If required, clean with wire brush around the welded point and put anti corrosion paint around the pins.</p>		
10	<p>Make sure to complete the application within the working time of 30 minutes.</p> <p><b>IMPORTANT:</b> In case of temperature above 30 °C the working time will be reduced to 10 minutes or less.</p>	 <p>30 min</p>	 <p>10 min</p>
11	<p>After finishing application clean tools with water immediately after use.</p> <p><b>Note:</b> Harden material can only be removed mechanically.</p>		
12	<p>Allow the application to cure for at least 12 hours.</p> <p>Protect the applied vertical acoustic system against freezing, direct heat / sunshine, and draught.</p>	 <p>12h</p>	

## Disclaimer

The information contained herein and any other advice 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. The information only applies to the application(s) and product(s) expressly referred to herein. In case of changes in the parameters of the application, such as changes in substrates etc., or in case of a different application, consult Sika's Technical Service prior to using Sika products. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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.