



SIKA  
MARINE



THE  
PROFESSIONAL'S  
CHOICE

# SIKAFLOOR® MARINE

## ACOUSTIC FLOORING SOLUTIONS

BUILDING TRUST





## MARINE ACOUSTIC FLOORING SOLUTIONS FOR MAXIMUM COMFORT

Onboard a ship, passengers are constantly subjected to noise and vibration from engines, thrusters, gearboxes, propellers, and other sources. To ensure maximum comfort of vessel occupants, Sikafloor® Marine acoustic solutions are designed to improve the environmental conditions in every part of the ship by reducing energy transmission and absorbing both airborne and structure-borne noise. Reduction of vibration and structure-borne noise is achieved with Sikafloor® Marine visco-elastic technologies, while the Sikafloor® Marine Litosilo X A-60 floating floor system is designed to address airborne and impact noise. By integrating visco-elastic technologies with Sikafloor® Marine Litosilo X, Sika's combination floating floor systems reduce structure-borne and airborne noise, providing the highest degree of comfort, sound insulation, and fire protection.

# VISCO-ELASTIC FLOORING SOLUTIONS

## FOR REDUCTION OF STRUCTURE-BORNE NOISE

Sikafloor® Marine visco-elastic systems provide the flexibility and mass needed to dampen the vibrations of vessels, especially in the lower frequency range produced by engines, thrusters, and other noise sources. These systems are built with a flexible layer applied to the deck and a constrained layer installed on top. The flexible, visco-elastic layer is our Sikafloor® Marine VEM technology, a polymer modified, cement-based mortar. The constrained layer comprises either a water-based cement mortar compound or steel tiles.

## SIKAFLOOR® MARINE VEM 18 AND VEM 190

### DESCRIPTION

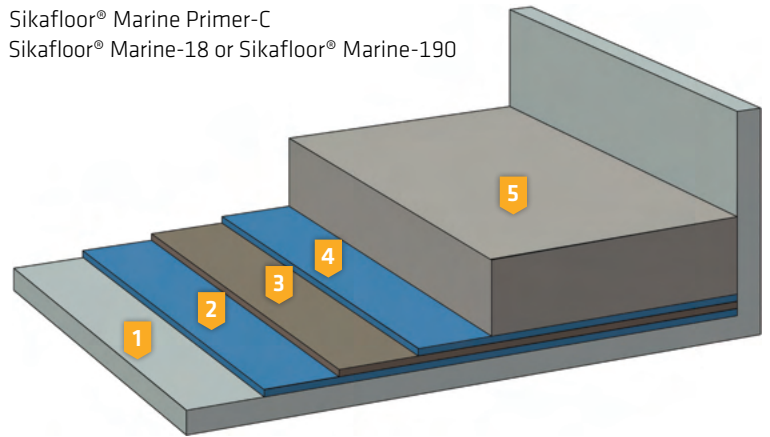
The Sikafloor® Marine VEM 18 and VEM 190 systems are visco-elastic, layered systems for noise vibration and damping of interior steel decks. The flexible layer is the Sikafloor® Marine VEM damping mortar, while the constrained layer comprises either Sikafloor® Marine-18 or Sikafloor® Marine-190 primary deck covering mortars.

### FEATURES

- Visco-elastic layer: Sikafloor® Marine VEM
- Constrained layer: Sikafloor® Marine-18 or Sikafloor® Marine-190
- 12 mm minimum build height
- Provides leveling properties

### COMPONENTS

- 1 Steel deck
- 2 Sikafloor® Marine Primer-C
- 3 Sikafloor® Marine VEM
- 4 Sikafloor® Marine Primer-C
- 5 Sikafloor® Marine-18 or Sikafloor® Marine-190



## SIKAFLOOR® MARINE VEM STEEL

### DESCRIPTION

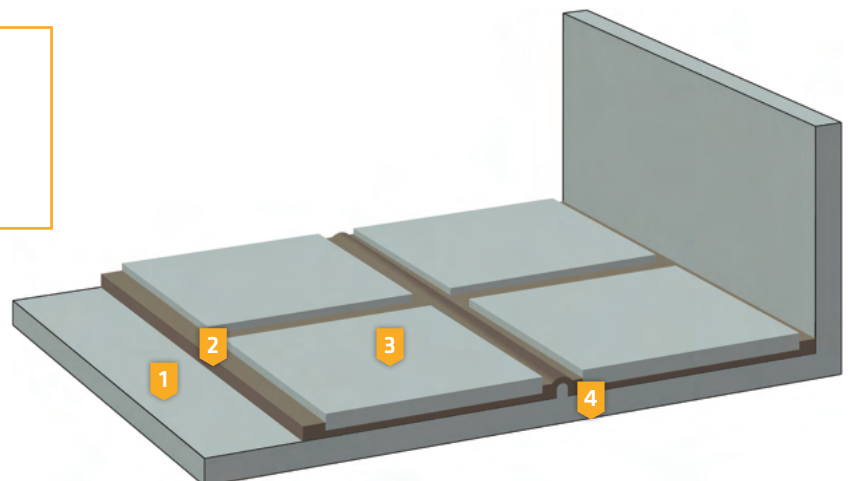
The Sikafloor® Marine VEM Steel system is a visco-elastic, layered system for damping of interior steel decks and bulkheads. The flexible layer is the Sikafloor® Marine VEM X damping mortar, while steel tiles serve as the constrained layer.

### FEATURES

- Visco-elastic layer: Sikafloor® Marine VEM X
- Constrained layer: Steel tiles
- 3.5-5 mm build height
- Primerless for deck applications

### COMPONENTS

- 1 Steel deck
- 2 Sikafloor® Marine VEM X
- 3 Steel tiles
- 4 Weld



# FLOATING FLOOR SOLUTIONS

## FOR REDUCTION OF AIRBORNE NOISE

Sika's basic floating floor is designed to address airborne and impact related noises. It is based on a combination of mineral wool and the Sikafloor® Marine Litosilo X mortar.

## SIKAFLOOR® MARINE LITOSILO X

### DESCRIPTION

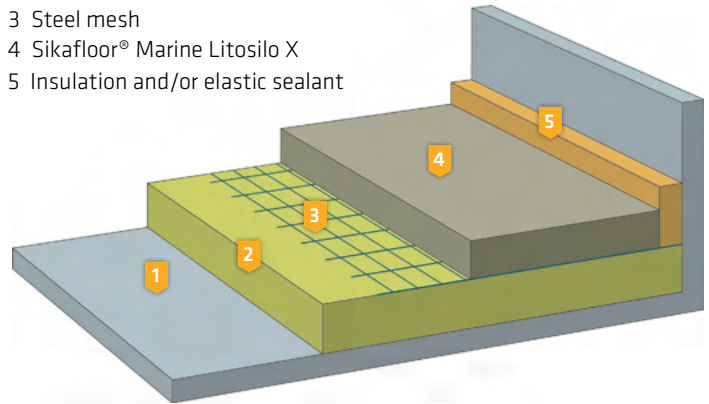
The Litosilo X floor system is constructed with the Sikafloor® Marine Litosilo X polymer-modified cement mortar serving as the top layer. Mineral wool serves as the insulation layer, while reinforcing wire mesh is utilized as the load distribution layer. This system provides a high degree of airborne noise reduction, but does not offer vibration damping properties.

### FEATURES

- A-60 approved with Isover and Rockwool insulation
- Reduces airborne noise
- 45 mm build height
- No vibration damping properties

### COMPONENTS

- 1 Steel deck
- 2 Mineral wool
- 3 Steel mesh
- 4 Sikafloor® Marine Litosilo X
- 5 Insulation and/or elastic sealant



# COMBINATION FLOATING FLOOR SOLUTIONS

## FOR REDUCTION OF STRUCTURE AND AIRBORNE NOISE

To achieve the highest degree of comfort, sound insulation, and fire protection, Sika offers combination floating floor systems, combining a visco-elastic system with a floating floor. The visco-elastic components provide vibration damping properties to reduce structure-borne noise, while the floating floor addresses airborne and impact noise. Available in several combinations, these systems are capable of reducing noise levels by up to 61 dB. A large number of Sikafloor® Marine combination floating floor systems provide an A-60 fire rating.

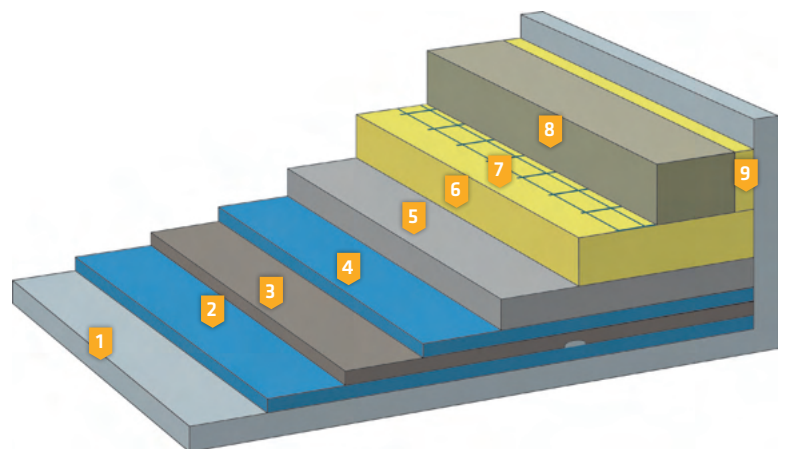
## SIKAFLOOR® MARINE LITOSILO X + VEM 190

### COMPONENTS

- 1 Steel deck
- 2 Sikafloor® Marine Primer-C
- 3 Sikafloor® Marine VEM
- 4 Sikafloor® Marine Primer-C
- 5 Sikafloor Marine-190
- 6 Mineral wool
- 7 Wire mesh
- 8 Sikafloor® Marine Litosilo X
- 9 Insulation and/or elastic sealant

### FEATURES

- A-60 approved with Isover and Rockwool insulation
- 57 mm build height
- Reduces structural and airborne noise



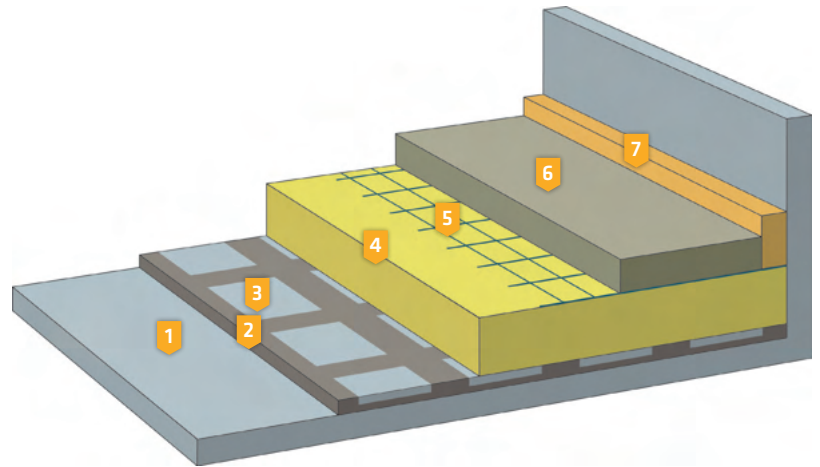
# SIKAFLOOR® MARINE LITOSILO X + VEM STEEL

## COMPONENTS

- 1 Steel deck
- 2 Sikafloor® Marine VEM X
- 3 Steel tiles
- 4 Mineral wool
- 5 Wire mesh
- 6 Sikafloor® Marine Litosilo X
- 7 Insulation and/or elastic sealant

### FEATURES

- A-60 approved with Isover and Rockwool insulation
- 48.5-50 mm build height
- Reduces structural and airborne noise



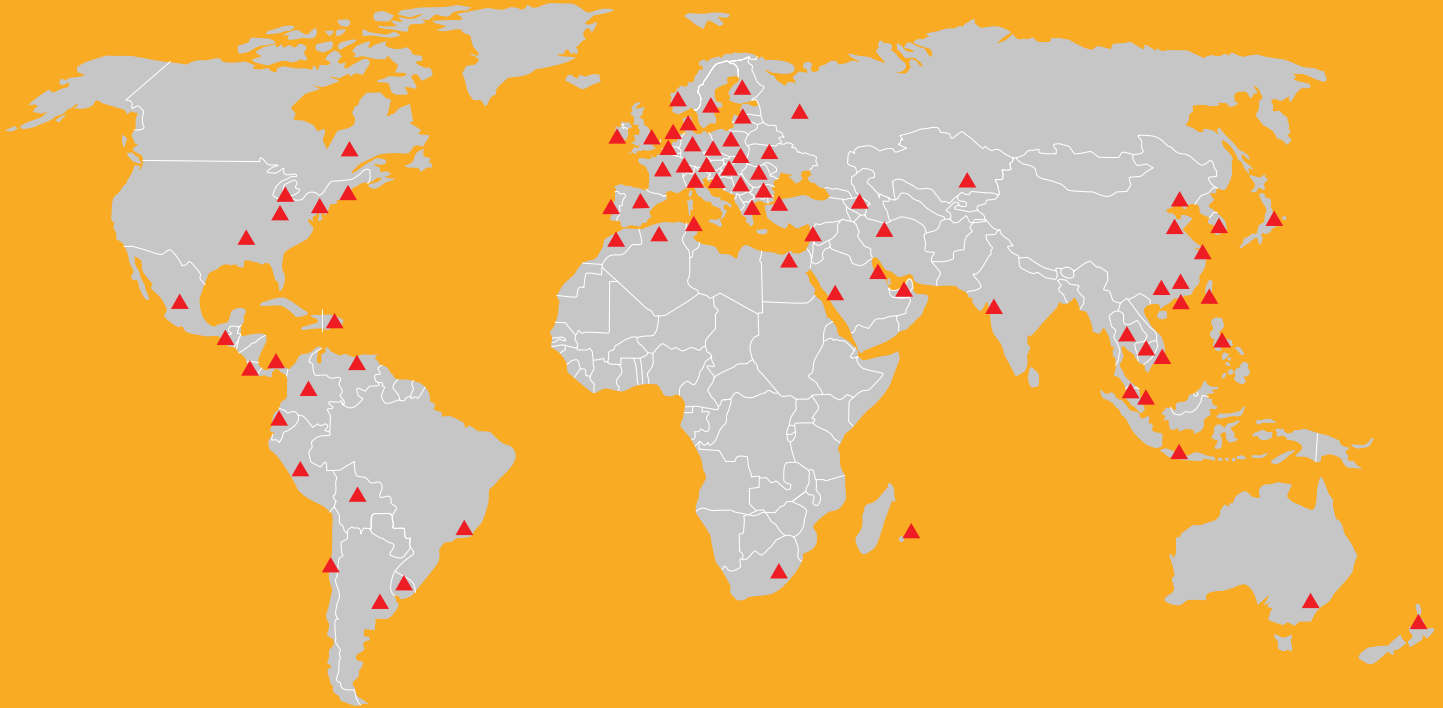
## MARINE MORTARS FOR ACOUSTIC FLOORING APPLICATIONS

Sika's range of polymer-modified cement mortars are critical components to any Sikafloor® Marine acoustic flooring system. These are one-component, easy to use materials that are ready-to-mix with the addition of cold, potable water. All of Sika's acoustic flooring mortars are approved by the International Maritime Organization (IMO).

MORTAR PRODUCTS	Sikafloor® Marine VEM	Sikafloor® Marine VEM X	Sikafloor® Marine-18	Sikafloor® Marine-190	Sikafloor® Marine Litosilo X
<b>VISCO-ELASTIC FLOORING APPLICATIONS BY SYSTEM (AIRBORNE NOISE REDUCTION)</b>					
VEM 18	Visco-Elastic Layer	–	Constrained Layer	–	–
VEM 190	Visco-Elastic Layer	–	–	Constrained Layer	–
VEM Steel	–	Visco-Elastic Layer	–	–	–
<b>FLOATING FLOOR APPLICATIONS BY SYSTEM (STRUCTURE-BORNE NOISE REDUCTION)</b>					
Litosilo X	–	–	–	–	Top Layer
<b>COMBINATION FLOOR APPLICATIONS (AIRBORNE + STRUCTURE-BORNE NOISE REDUCTION)</b>					
Litosilo X + VEM 190	Visco-Elastic Layer	–	–	Constrained Layer	Top Layer
Litosilo X + VEM Steel	–	Visco-Elastic Layer	–	–	Top Layer
<b>PRODUCT PROPERTIES</b>					
Packaging	16 KG Bag	16 KG Bag	25 KG Bag	25 KG Bag	20 KG Bag
Mix Ratio Per Bag	5.3 - 5.8 L	4 - 4.6 L	2.8 - 3.3 L	5.3 - 5.8 L	4 - 4.6 L
Density (Cured)	1.3 kg/l	1.3 kg/l	1.8 kg/l	1.8 kg/l	1.3 kg/l
Application Thickness	2 mm	2-3 mm	5 - 25 mm	3 - 25 mm	6 - 100 mm
Coverage Per Bag	6 m <sup>2</sup> (2mm thickness)	14 m <sup>2</sup> (1mm thickness)	14 m <sup>2</sup> (1mm thickness)	13 m <sup>2</sup> (1mm thickness)	13 m <sup>2</sup> (1mm thickness)
Working Time <sup>(A)</sup>	30 Minutes	30 Minutes	30 Minutes	20 Minutes	20 Minutes
Ready to Walk Time <sup>(A)</sup>	12 Hours	16 Hours	24 Hours	2 Hours	3 Hours
Compressive Strength <sup>(B)</sup>	N/A	N/A	18 MPa	33 MPa	35 MPa
E-Modulus <sup>(B)</sup>	N/A	N/A	8 GPa	17 GPa	13 GPa
Trowel-Out or Self-Leveling	Trowel-Out	Trowel-Out	Trowel-Out	Self-Leveling	Trowel-Out

(A) 23°C (73°F) / 50% Relative humidity  
 (B) After 28 days

# GLOBAL BUT LOCAL PARTNERSHIP



## NORTH AMERICAN PLANT LOCATIONS

Eaton Rapids, Michigan  
Lakewood, New Jersey  
Lyndhurst, New Jersey  
Marion, Ohio  
Grandview, Missouri  
Montreal, Quebec

## SIKA INDUSTRY

30800 Stephenson Highway  
Madison Heights, MI 48071  
(248) 577-0020

## NORTH AMERICAN SILICONE COMPETENCE CENTER

995 Towbin Avenue  
Lakewood, NJ 08701

## CONTACT US:

[sikaindustry.com/marine](http://sikaindustry.com/marine)

## CUSTOMER SERVICE

1-800-688-7452

## TECHNICAL SERVICE

[tsmh@us.sika.com](mailto:tsmh@us.sika.com)

## Best-in-Class Marine Flooring Solutions

Sika is trusted worldwide in the field of flooring solutions for commercial vessels, heavy-duty workboats, yachts, and cruise ships. Beyond deck leveling, the Sikafloor® Marine product range includes high-performance systems for acoustic flooring and floating floors, as well as decorative interior and exterior flooring. With the complete Sikafloor® Marine portfolio, Sika offers shipyards and end-users a one-stop-shop where quality, comfort, aesthetics, ease of use, safety, and service come first.

Scan to learn more about  
Sika's solutions for the  
shipbuilding industry!



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