

# TYPE APPROVAL CERTIFICATE

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**This is to certify:**

**That the Horizontal Class A Division**

with type designation(s)  
**VEM Steel + Litosilo N**

Issued to

**Sika Services AG**  
**Zürich, ZH, Switzerland**

is found to comply with

**DNV GL offshore standards**  
**DNV GL rules for classification – Ships**  
**DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations**

**Application :**

**Approved for use as a horizontal fire retarding division of class A-60.**

**This certificate is recognized by Transport Canada.**

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Hamburg** on **2021-05-28**

for **DNV**

This Certificate is valid until **2026-05-27**.

DNV local station: **Augsburg**

Approval Engineer: **Timo Linn**

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**Jörg Kallies**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



## Product description

### “VEM Steel + Litosilo N”

Floating floor composed of the following components applied on a steel deck (from top to bottom):

- Sikafloor®Marine VEM X mixed with water, applied on the steel deck surface
- Steel tiles, 150 x 310 x 1.5 mm on top of the Sikafloor®Marine VEM Steel
- Mineral wool Slabs, 20 mm thick SeaRox SL 436, density 140 kg/m<sup>3</sup>, mounted tightly together (compressed), on top of the steel tiles.

Alternative 1:

- 25 mm of Sikafloor®Marine Litosilo N casted on top of the mineral wool layer.

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Alternative 2:

- 25mm Sikafloor®Marine Litosilo X casted on top of the mineral wool layer.

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Alternative 3:

- 25mm Sikafloor®Marine 18 casted on top of mineral wool layer

Total thickness: approx. 48 mm.

For further details, see under Type Approval documentation below.

## Application/Limitation

Approved for use as a horizontal fire retarding division of class A-60.

Any surface materials used have to be approved for smoke and toxicity and low flame spread characteristics (IMO 2010 FTP Code parts 2 and 5) when required according to relevant rules.

The product is to be supplied with its manual for installation and use.

## Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, September 2018.

Test report no. PGA11482A dated 11<sup>th</sup> of September 2019 from DBI, Danish Institute of Fire and Security Technology, Hvidovre, Denmark.

Assessment report PHD10019A dated 23<sup>rd</sup> of December 2020 from DBI, Danish Institute of Fire and Security Technology, Hvidovre, Denmark.

## Tests carried out

Tested according to IMO Res. MSC.307(88) – 2010 FTP Code Annex 1, Part 3.

## Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation and fire-technical rating.

## Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled “*Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)*”, DNV confirms that the products listed in this certificate are in accordance with Transport Canada’s requirements.

## Periodical assessment

DNV’s surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNVGL-CP-0338, Section 4.