

EC-TYPE EXAMINATION (MODULE B) CERTIFICATE

This is to certify that:

DBI Certification did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with requirements of Marine Equipment Directive (MED) 2014/90/EU, subject to any conditions in the schedule attached hereto.

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| Manufacturer Address | Sika Services AG, Tuffenweis 16, CH-8048, Zurich, Switzerland and |
| Authorised Representative Address | Sika Danmark A/S, Hirsemarken 5, 3520 Farum, Denmark |
| Directive Reference | MED Directive 2014/90/EU , Regulation as amended by MED (EU) 2021/1158. |
| Regulation Item | MED 3.1 Primary deck coverings; MED 3.18c: Surface materials and floor coverings with low flame-spread characteristics: floor coverings |
| Product Type | Sikafloor® Marine VEM Steel |
| Product Description | Sikafloor® Marine VEM Steel, Visco elastic system as floor covering, primary deck covering, ceiling and bulkhead, consists of steel plates applied on a steel substrate and bonded together using a cementitious adhesive. |
| Specified Standards | IMO Res.MSC.307(88)-(2010 FTP Code), as amended., IMO Res.MSC.307(88)-(2010 FTP Code), as amended |

The attached (*schedule of approval*) forms part of this certificate.

This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with.

Date of issue: 2021-11-09

Issued by DBI Certification Notified Body No. **2531**

Expiry date: 2026-11-09

This certificate was first issued 2021-11-09 by NB no.2531.

Signed

Name



Thomas Anthony Wilson
Responsible for evaluation



Allan Laursen
Responsible for certification decision

Notes:

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with, the notified body named on this certificate.

During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards of the Commission Implementing Regulation may change, therefore the product conformity may need to be re-assessed by the Notified Body.

The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E, or F) of the Directive is fully complied with.

In case limitations of use apply, these should be indicated of in the Annex

This certificate is issued under the authority of the Danish Maritime Authority.

This equipment is covered by the scope of "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 18th, 2019" According to U.S. Coast Guard Approval Category No.:164.106 and 164.117. A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F) as allowed by the Mutual Recognition Agreement.

(Annex)

Schedule of Approval

Place of Production

Sika Italia S.p.A, Via Radici in Piano 558, 41049 Sassuolo (MO), Italy

Product Description

SikaFloor® Marine VEM: Visco elastic system as floor covering, primary deck covering, ceiling and bulkhead, consists of electro galvanized steel plates bonded to 3mm steel substrate with Sikafloor Marine VEM X adhesive.

Adhesive maximum density: 4.5 kg/m², (cured)

Maximum thickness of adhesive: 3mm (cured)

Tested colour: Grey

Maximum organic content: 27 wt.%

Product Classification

The Sikafloor® Marine VEM Steel applied onto a 3 mm steel sheet, fulfils the criteria in IMO Res. MSC.307(88)-(2010) FTP code Annex 1 Part 5 and are therefore considered to meet the requirement for surface flammability in compliance with the relevant regulations in chapter II-2 of the Convention.

The Sikafloor® Marine VEM Steel as applied, has a total heat release (Qt) of not more than 0.2 MJ and a peak heat rate (qp) of not more than 1.0 kW, it is considered to comply with the requirements of part 2 without further testing, cf. paragraph 2.7 of appendix 4 to part 5. Furthermore, it is expected to satisfy a requirement of maximum gross calorific value (e.g., 45 MJ/m² according to ISO 1716) without further testing, cf. paragraph 2.3 of Annex 2 of the IMO 2010 FTP code.

Application / Limitation of Product

Tested as:

Sikafloor® Marine VEM Steel system includes the application of Sikafloor® Marine Primer C and steel plates with holes Ø16mm (max. 5 holes per 0.25 m²), mounted to studbolts Ø8mm on the bulkhead fastened with Ø25mm washers and M8 nuts.

Surface : 450x550x2 mm steel plates

Adhesive : VEM X, 3.9 kg/m²

Bolts : 5 x Ø16 holes

Substrate : 3 mm steel

Sikafloor® Marine VEM Steel system consisted of 310x150x1.5 mm steel plates applied with a max.8 mm. gap exposing the VEM.

Surface : 310x150x1.5 mm steel plates

Adhesive : VEM X, 4.5 kg/m²

Substrate : 3 mm steel

This product may be used as a floor covering, primary deck covering, ceiling or bulkhead covering.

Not to be used as an integrated part of horizontal class A division unless tested as such.

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

Type Approval Documentation

Test report no.

PFB10486A dated 2021-10-21 by DBI

PFB10486B dated 2021-10-21 by DBI

Tested according to:

International Code for Application of Fire Test Procedures, 2010 Resolution MSC.307(88), IMO 2010 FTP Code, Annex 1 Part 5: "Test for surface flammability"

APPLICATION MANUAL

Sikafloor® Marine VEM Steel Vertical: JUNE 2021 / VERSION 01 / SIKA SERVICES AG

Sikafloor® Marine VEM Steel Vertical Stud bolt Version: OCTOBER 2021 / VERSION 01 / SIKA SERVICES AG

Marking of Product

The product or packing is to be marked with name of manufacturer, type designation, technical rating and Mark of Conformity.

The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E, or F) of ANNEX II of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

End of Certificate