

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB0000B5D
Revision no.:
0

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:

that the **Penetrations through 'A' class divisions: - electric cable transits**

with type designation(s)

Marine Flex System and Easy Transit - A

issued to

FireSeal AB

Kista, Sweden

is found to comply with the Implementing Regulation (EU) 2024/1975 for
Item no. **MED/3.26a** (Row **1 of 1**)

according to the following requirements:

IMO Res. MSC.1/Circ.1655, SOLAS 74 Reg. II-2/9

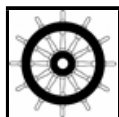
Further details of the equipment and conditions for certification are given overleaf.

Date of issue: **2025-07-01**

Expiry date: **2030-06-30**

DNV local unit:
Sweden CMC

Approval Engineer:
Marcin Tobiasz



for **DNV AS**

Notified Body
no.: **0575**

Christine Mydlak-Röder
Head of Notified Body

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 Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment signed 17 October 2005, and amended by Decision No 1/2023 dated August 21st, 2023.



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-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

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 USD 300 000.

Product description

"Marie Flex System"

consists of a 76 mm thick insulation Marine Blanket (density 96 kg/m³, manufactured by FireSeal) and silicone sealant Marine Flex. The sealant is applied with a minimum 12 mm on each side of the transit. The rectangular opening shall be framed on both sides of the sandwich panel with 40 x 40-L angles. These angles are fixed to sandwich panel facing with self-drilling screws at distances of 120 mm from one side.

Penetration may incorporate a 330 mm long intumescent sleeve with 50 mm diameter, either cable filled or empty. If installed empty, both ends of the intumescent sleeve shall be capped with supplied lids or with minimum 7 mm thick sealant Marine Flex. If cable filled, the end of the intumescent sleeve shall be sealed with minimum 7 mm thick sealant Marine Flex on both sides.

"Easy Transit - A"

is an openable circular intumescent collar bolted (with four self-drilling screws) to the sandwich panel. A fireproof cloth with length 300 mm covers collar and cables. The fireproof cloth is twisted and secured with steel cable ties around the collar and cables. Any visible gaps between cables and cables and fireproof cloth are filled with insulation Marine Blanket (density 96 kg/m³, manufactured by FireSeal).

Application/Limitation

Approved for use as a single or multicable penetration system in non-loadbearing A-60 bulkheads made of sandwich panels type G21 Fire Panel (A-60) manufactured by InterDam with a thickness of 100 mm and a density of 120 kg/m³ or equivalent constructed sandwich panels with A-60 rating.

Penetrations through structural divisions should not impair the structural strength of the division. Special consideration should be given to bulkheads and decks with high stress locations (IMO MSC.1/Circ.1488).

The insulation material used has to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

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

Please see Appendix: Application/Limitation

Type Examination documentation

Tests carried out

Tested according to IMO 2010 FTP Code part 3 and IMO MSC.1/Circ.1488.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire-technical rating, MED Mark of Conformity and USCG approval number if applicable (see first page).

APPENDIX

Application/Limitation

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Table 1: Approved cable penetration in A-60 bulkheads made of sandwich panels.

Type	Size (H x W) [mm]	Max. cable diameter (OD) [mm]	Filling ratio [%]	Collar / L-profiles length [mm]	Collar / L-profiles thickness [mm]	Sleeve position	Sleeve insulation
Marine Flex System	100x50 – 600x400	77 (35) ²⁾	53 ¹⁾	40 ³⁾	1.5 ³⁾	Symmetrical	Fully insulated on one side and 300 mm along cables
Easy Transit - A	Ø160	77	78	62	20	Any position	Fully insulated on one side

- 1) Min. distance between cables and sleeve is 5 mm. Min. distance between intumescent sleeve and steel sleeve is 10 mm.
 2) Max. size of cable inside 330 mm long intumescent sleeve with diameter 50 mm.
 3) From both side of opening there are installed 40x40x1.5 mm L-profiles