DNV·GL

Certificate No:
MEDB00006EG

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the A & B Class divisions fire integrity: A class divisions.

with type designation(s)
TEFROLITH® FF STEEL VISCOELASTIC F

Issued to
G. Theodor Freese GmbH
Bremen, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2020/1170,**
item No. MED/3.11a. SOLAS 74 as amended, Regulation II-2/3.2 & II-2/9, IMO 2010 FTP Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1434, IMO MSC.1/Circ.1435.

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

This Certificate is valid until **2025-10-04**.
Issued at **Hamburg** on **2020-10-05**

DNV GL local station:
Hamburg CMC

Approval Engineer:
Roland Priebe

Notified Body
No.: **0098**

for **DNV GL SE**

Gerhard Aulbert
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 European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004, and amended by Decision No 1/2018 dated February 18th, 2019.

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 GL SE 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.

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Product description

The **TEFROLITH® FF STEEL VISCOELASTIC F** is a horizontal class A-60 division with insulating floor covering for indoor application.

It consists of 9 layers as below:

Layer 1: Steel deck.
Layer 2: TEFROTEX® Viscoelastic Layer (THIX), 2 mm.
Layer 3: Galvanized steel sheets, 3 mm.
Layer 4: Rockwool SeaRox SL 436 (140 kg/m³), 50 mm.
Layer 5: Galvanized steel strips, 3 mm.
Layer 6: TEFROTEX® Viscoelastic Layer (THIX), 1 mm.
Layer 7: Galvanized steel sheets, 3 mm.
Layer 8: TEFROTEX® Viscoelastic Layer (THIX), 1 mm.
Layer 9: Galvanized steel sheets, 1.5 mm.

The TEFROTEX® Viscoelastic Layer (THIX) is to be applied on a small surface at a time and the thickness is to be controlled with a special tool. It is a grey coloured 2-component viscous material (1.2 g/cm³, 81.8 % organic content) that shall be mixed just before application.

For further details refer to the documentation listed below under "Type Examination documentation".

Application/Limitation

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

The insulation material as well as the TEFROTEX® Viscoelastic Layer (THIX) have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

Each product is to be supplied with its instruction for installation.

Type Examination documentation

Test report No. PGA11635A rev.1 dated 14th January 2020 from 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,
- fire technical rating and
- the MED Mark of Conformity (see page 1) and
- USCG approval number, if applicable.

USCG Approval Category (Module B) number

This product has been assigned a U.S. Coast Guard Module B number 164.105/EC0098 to note type approval to Module B only as it pertains to obtaining US Coast Guard approval as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th,2004 and amended by Decision No.1/2018 dated February 18th, 2019.