DNV·GL

Certificate No:
MEDB00004SR

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" Class divisions, fire integrity

with type designation(s)
TEFROLITH® FF-STEEL A-60

Issued to
G. Theodor Freese GmbH
Bremen, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773,**
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

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

This Certificate is valid until **2024-01-23**.

Issued at **Hamburg** on **2019-01-24**

DNV GL local station:
Bremerhaven

Approval Engineer:
Timo Linn

Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudszus
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.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Product description

"TEFROLITH® FF-STEEL A-60"
The floating floor construction was built of several layers on top of the steel deck as follows (Layer 1 from the bottom up to Layer 5 to the top):

Layer 1: Steel deck. (5 mm steel deck suitably stiffened)
Layer 2: Mineral wool, Rockwool SeaRox SL 436, 50 mm.
Layer 3: Steel plates, 1000 x 2000 x 3 mm.
Layer 4: TEFROTEX® Viscoelastic Thix, 1.0 mm.
Layer 5: Steel plates, 1000 x 1000 x 1.5 mm.

Insulation
SeaRox SL 436, thickness 50 mm, density 140 kg/m^3, manufactured by Rockwool.

TEFROTEX® VISCOELASTIC Thix, thickness 1.0 mm approximate density 1.2 kg/m^2/mm, manufactured by GTF-Freese.

For further details see documents under Type Examination documentation below.

Application/Limitation

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

The insulation materials and adhesives used 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 manual for installation and maintenance.

Type Examination documentation

Test report No. PGA11345A dated 17th of January 2019 from Danish Institute of Fire Technology, Denmark.

Tests carried out

Tested according to IMO Res. MSC.307(88) – 2010 FTP Code Annex1, Part 3.

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.

Marking of product

The product is to be marked with name and address of manufacturer, type designation, fire technical rating and MED Mark of Conformity (see first page).