DNV·GL

Certificate No:
MEDB00004VT

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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 GL AS under the authority of the Government of Norway.

This is to certify:

That the "A" Class divisions, fire integrity

with type designation(s)
Class A-60 with Wall Sound Damping (TEFROLITH WSD)

Issued to
GTF Korea Ltd.
Busan, Republic of Korea

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 **2024-03-03**.

Issued at **Høvik** on **2019-03-04**

DNV GL local station:
Gimhae Station

Approval Engineer:
Marcin Tobiasz

Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
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.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

NORWEGIAN ACCREDITATION PROD 019

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Product description

"Class A-60 with Wall Sound Damping (TEFROLITH WSD)"
composed of structural steel core covered with following layers (from bulkhead plating):

- 1 mm thick VISCOELASTIC covering with density of 1.4 kg/m^3
- 2 mm thick steel plates each bolted by 5 x M6 stud bolts to steel core
- 75 mm thick "HI WOOL" of density of 110 kg/m^3 (manufactured by KCC Corporation)

Additional insulation (same as above), 25 mm thick, is fitted around stiffeners and also covering inside of cavities of the stiffeners.

The insulation is held in place using Ø3 steel pins. Pins on stiffeners are positioned centrally at maximum spacing of 300 mm. Between stiffeners the maximum distance between pins are 300 mm vertically and 285 mm horizontally. Maximum distance from pin to horizontal joint is 196 mm and to vertical joint is 158 mm.

For further details, see documentation listed under Type Examination documentation below.

Application/Limitation

Approved for use as a vertical 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. KOMERI-0402-18T1256 dated 14 November 2018 from Korea Marine Equipment Research Institute (KOMERI), Busan, Korea.

Drawing No. gtf-1807-001 dated 26 July 2018 from maker.

Tests carried out

Marking of product

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