

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 the Kingdom of Norway.

This is to certify:

That the "A" Class divisions, fire integrity

with type designation(s)

A-60 Steel Bulkhead - FireMaster Marine Plus Blanket 60 mm x 80 kg/m3

Issued to

Thermal Ceramics UK Ltd
WIRRAL MERSEYSIDE, United Kingdom

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2015/559,**

Annex A.1, item No. A.1/3.11a and Annex B, Module B in the Directive; SOLAS 74 as amended, Regulation II-2/3.2.5 and IMO 2010 FTP Code.

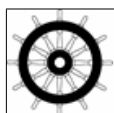
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2018-03-09**.

Issued at **Høvik** on **2017-01-08**

DNV GL local station:
Manchester

Approval Engineer:
Helge Bjørnara



Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
Head of Notified Body

Job Id:
Certificate No: **MEDB00001NS**

Product description

A-60 Steel Bulkhead - FireMaster Marine Plus Blanket 60 mm x 80 kg/m³
composed of a structural steel bulkhead insulated on the stiffened side with a single layer of 60 to 65 mm thick FireMaster Marine Plus Blanket (density 80 kg/m³) applied across the stiffeners. The stiffeners are also to be packed with the same blanket.

The 60 to 65 mm insulation layer over the stiffeners may be compressed to no less than 25 mm.

The blankets are held in place using copper coated mild steel pins (Ø 3 mm / typically between 80 to 90 mm long) welded to the bulkhead and 38 mm friction-fit washers. The pins are to be installed with a maximum spacing of 350 mm. At the joints the blankets should be compressed. Joints between blankets can be placed a maximum of 350 mm from an anchor pin across the blanket width and a maximum of 250 mm from an anchor pin where lengths of blanket are joined together.

The installation is to be performed according to the manufacturers Method Statement No. FM-MS 01 PW and Fire Protection Systems Information No. FM 4.101.

Application/Limitation

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

General application: Fire hazard from either side

The insulation system is also approved for corrugated bulkheads composed of a minimum 4.5 mm steel.

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-0402-15T4084 dated 01 July 2016 from Korea Marine Equipment Research Institute, Busan, Korea.

Test report No. FT12072 dated 5 April 2012 from Far East Fire Testing Centre, Shanghai, China.

Test report No. 227561 dated 16 June 2008 from BRE Testing, Garston, UK.

Thermal Ceramics Method Statement No. FM-MS 01 PW and Fire Protection Systems Information No. FM 4.101.

Tests carried out

Tested according to IMO FTPC Part 3 (IMO Res. A.754(18)) and in compliance with IMO 2010 FTP Code Ch. 8. Test KOMERI-0402-15T4084 is performed according to IMO 2010 FTP Code Part 3.

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 page 1).