

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00002C1
Revision No:
1

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 Fire resisting divisions for high speed craft

with type designation(s)

60 minute HSC Aluminium Bulkhead 2 mm - FireMaster Marine Plus Blanket

Issued to

Thermal Ceramics UK Ltd
Wirral, Merseyside, United Kingdom

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

Regulation **(EU) 2021/1158**,

item No. MED/3.34. SOLAS 74, Regulation X/3, 2000 HSC Code 7, IMO MSC.1/Circ.1457 and IMO 2010 FTP Code

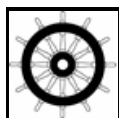
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2026-09-25**.

Issued at **Høvik** on **2021-10-28**

DNV local station:
Manchester

Approval Engineer:
Helge Bjørnara



Notified Body
No.: **0575**

for **DNV AS**

Sverre Olav Bergli
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 1/2019 dated February 22nd, 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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 300,000 USD.



Product description

“60 minute HSC Aluminium Bulkhead 2 mm - FireMaster Marine Plus Blanket”, composed of a 2 mm thick aluminium bulkhead horizontally stiffened on the exposed side by 30 mm wide x 30 mm deep C-shaped stiffeners, spaced at 125 mm. The bulkhead is additionally reinforced by vertical aluminium T-sections beams, 80 mm wide x 200 mm deep x 8 mm thick, located (welded) across to the stiffeners and spaced at 1200 mm.

The bulkhead is insulated on the exposed side with an aluminium foil and a layer of 50 mm thick FireMaster Marine Plus Blanket (manufactured by Thermal Ceramics with density 70 kg/m³) applied across the stiffeners, keeping a 30 mm air gap between the deck and the blanket. The aluminium foil is placed between the insulation blanket and the bulkhead. The T-section beams are insulated around with a layer of 50 mm thick FireMaster Marine Plus Blanket (manufactured by Thermal Ceramics with density 70 kg/m³) with air gap on both sides of the web (box insulation).

The nominal blanket width is 610 mm and is to be compressed to a width of 580 mm to ensure compression at joints.

The blankets are held in place using bi-metallic pins (Ø 3 mm / typically 60 & 125 mm long) welded to the underside of T-stiffeners and 38 mm friction washers. The pins are to be installed with a maximal spacing of 250 mm, whereas pins at the joints between blankets shall have a nominal spacing of 100 mm from the blanket edge.

The installation is to be performed according to the manufacturers Fire Protection Systems Information, reference No. FM MS 02 PW and No. FM 4.68.

Application/Limitation

Approved as a non-loadbearing fire-resisting bulkhead 60.

Restricted application: Fire against insulated side

The insulation material FireMaster Marine Plus Blanket 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.

Type Approval documentation

Test report No. 2006CS013616/4 dated 26 September 2006 from RINA, Genoa, Italy.

Thermal Ceramics Fire Protection Systems Information, reference No. FM MS 02 PW and No. FM 4.68, Rev.3.

Tests carried out

Tested according to IMO FTP Code Part 11 (IMO Res. MSC.45(65) and IMO Res. A.754(18)) and in compliance with IMO 2010 FTP Code Ch. 8.

Marking of product

The product 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 page 1).