

# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:  
**MEDB00000XM**  
Revision No:  
**5**

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 Non-combustible materials

with type designation(s)  
**FireMaster MarineFlex**

Issued to

**Thermal Ceramics UK Ltd**  
**Wirral, Merseyside, United Kingdom**

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

Regulation (EU) 2020/1170,

item No. MED/3.13. SOLAS 74 as amended, Regulation II-2/3 II-2/5, II-2/9 & X/3, 2000 HSC Code 7 and IMO 2010 FTP Code

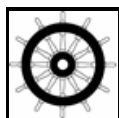
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2026-04-11**.

Issued at **Høvik** on **2021-04-12**

DNV local station:  
**Manchester**

Approval Engineer:  
**Helge Bjørnarå**



Notified Body  
No.: **0575**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

“FireMaster MarineFlex”,  
 composed of microporous thermal insulation material (mainly consisting of fumed silica) with quilting seams and lining  
 (please see table below).

Product variation	Nominal density of core material	Type of Lining
FireMaster MarineFlex ST 2D25	210 kg/m <sup>3</sup>	Thermo-E glass fabric
FireMaster MarineFlex ST 3D25	210 kg/m <sup>3</sup>	Thermo-E glass fabric
FireMaster MarineFlex ST 2D50	210 kg/m <sup>3</sup>	Thermo-E glass fabric
FireMaster MarineFlex ST 3D50	210 kg/m <sup>3</sup>	Thermo-E glass fabric
FireMaster MarineFlex HT 2D25	280 kg/m <sup>3</sup>	Silica fabric
FireMaster MarineFlex HT 3D25	280 kg/m <sup>3</sup>	Silica fabric
FireMaster MarineFlex HT 2D50	280 kg/m <sup>3</sup>	Silica fabric
FireMaster MarineFlex HT 3D50	280 kg/m <sup>3</sup>	Silica fabric
FireMaster MarineFlex P 2D25	270 kg/m <sup>3</sup>	Glass Fabric Type C
FireMaster MarineFlex P 3D25	270 kg/m <sup>3</sup>	Glass Fabric Type C
FireMaster MarineFlex P 2D50	270 kg/m <sup>3</sup>	Glass Fabric Type C
FireMaster MarineFlex P 3D50	270 kg/m <sup>3</sup>	Glass Fabric Type C
FireMaster MarineFlex P 2D25	270 kg/m <sup>3</sup>	Glass Fabric Type D
FireMaster MarineFlex P 3D25	270 kg/m <sup>3</sup>	Glass Fabric Type D
FireMaster MarineFlex P 2D50	270 kg/m <sup>3</sup>	Glass Fabric Type D
FireMaster MarineFlex P 3D50	270 kg/m <sup>3</sup>	Glass Fabric Type D

## Application/Limitation

Approved for use as non-combustible material.

The product may be used as an integrated part of approved fire resisting divisions only when tested as such.

Max. organic content (dry weight):

MarineFlex ST:	3.6%
MarineFlex HT:	3.6%
MarineFlex P:	2.5%

Each product is to be supplied with its manual for installation and use.

## Type Examination documentation

Test report No. 20652557-10, GS-BS-Hau/Wa dated 27 May 2015 from DMT GmbH & Co. KG, Germany.

Test report No. 20669855-10a, APS4-Hau/Wa dated 12 June 2017 from DMT GmbH & Co. KG, Germany.

Test report No. 20669855-10b, APS4-Hau/Wa dated 12 June 2017 from DMT GmbH & Co. KG, Germany.

Assessment Report no. 20657536-10, APS4-Mü/Hau dated 17 November 2015 from DMT GmbH & Co. KG, Germany.

## Tests carried out

Tested according to IMO 2010 FTP Code part 1.

## Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, MED Mark of Conformity and USCG approval number if applicable (see page 1).