



# TYPE APPROVAL CERTIFICATE

Certificate No:  
**TAF00000YE**  
Revision No:  
**2**

## This is to certify:

**That the Class H Fire Wall and Bulkhead**

with type designation(s)  
**H-60 Steel Bulkhead – 2 x 50 mm FireMaster Marine Plus Blanket**

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

is found to comply with  
**DNV offshore standards**

## Application :

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

Issued at **Høvik** on **2023-05-10**

for **DNV**

This Certificate is valid until **2028-05-09**.  
DNV local unit: **UK & Ireland CMC & VMC**

Approval Engineer: **Helge Bjørnarå**

.....  
**Jowita Permoda**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.  
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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

H-60 Steel Bulkhead - 2 x 50 mm FireMaster Marine Plus Blanket, composed of a structural steel bulkhead insulated with two layers of 50 mm thick FireMaster 607 or FireMaster Marine Plus Blanket (manufactured by Thermal Ceramics with density 96 kg/m<sup>3</sup>) fixed to the bulkhead with galvanized chicken wire and steel pins with washers and compressed to a total thickness of about 80-90 mm. The nominal blanket width is 610 mm and is to be compressed to a width of 600 mm to ensure compression at joints.

The blankets are to be fitted in horizontal strips and the joints between each layer are to be staggered by approximately half a strip width.

The installation is to be performed according to the manufacturers Fire Protection Systems Information, reference No. FM MS 01 PW and No. FM 4.33.

The products may be manufactured at the premises of:

- Morgan Kailong (Jingmen) Thermal Ceramics Co., Ltd., Jingmen, China
- Morgan Thermal Ceramics (Shanghai) Co., Ltd., Shanghai, China
- Thermal Ceramics de France S.A., Saint Marcellin en Forez, France
- Murugappa Morgan Thermal Ceramics Ltd., Gujarat, India
- Murugappa Morgan Thermal Ceramics, Ranipet, India
- Thermal Ceramics Korea, Daegu, Korea
- Grupo Industrial Morgan SA de CV, Pachuca de Soto, Mexico
- Morgan Advanced Materials Industries Ltd, Abu Dhabi, United Arab Emirates
- Thermal Ceramics, Augusta, United States

## Application/Limitation

Approved for use as a fire retarding bulkhead of class H-60.

General application: Fire against either side\*

\* In areas with requirements to maximum steel temperature in load bearing constructions, the bulkhead is approved for restricted application: Fire against insulated side

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

## Type Approval documentation

Certification in accordance with Class Programme DNV-CP-0338, September 2021.

Test report No. 211124 dated 26 February 2003 from BRE, Watford, UK.

Thermal Ceramics Fire Protection Systems Information, reference No. FM MS 01 PW, Rev.9 and No. FM 4.33, Rev.1.

## Tests carried out

Tested according to IMO FTP Code Part 3 (IMO Res. A.754(18)) with the hydrocarbon time-temperature curve specified in ISO 834-3.

## Marking of product

The product or packing is to be marked with name of manufacturer, type designation and fire technical rating.

## Periodical assessment

DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNV-CP-0338, Section 4.