



TYPE APPROVAL CERTIFICATE

Certificate No:
TAF00000YF
Revision No:
2

This is to certify:

That the Class H Fire Wall and Bulkhead

with type designation(s)
H-120 Steel Bulkhead – 3 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-120.

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**

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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-120 Steel Bulkhead – 3 x 50 mm FireMaster Marine Plus Blanket, composed of a structural steel bulkhead insulated with one layer of 50 mm thick FireMaster Marine Plus Blanket (manufactured by Thermal Ceramics with density 70 kg/m³) fitted between stiffeners and two layers of the same insulation material fitted between and over stiffeners with joints staggered by a half blanket.

Total insulation thickness 150 mm.

The nominal blanket width is 610 mm and is to be compressed to a width of 600 mm at joints.

The blankets are held in place using steel pins (Ø 3 mm / 12-25 mm longer than blanket thickness) welded to the bulkhead and friction-fit steel washers. The pins are to be installed with a nominal spacing of 350 mm in vertical direction and maximum 350 mm in horizontal direction.

The installation is to be performed according to the manufacturers Fire Protection Systems Information, reference No. FM MS 01 PW and No. FM 4.94.

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 Marcelin 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, Kizad, United Arab Emirates
- Thermal Ceramics, Augusta, United States

Application/Limitation

Approved for use as a fire retarding bulkhead of class H-120

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. FT08147 dated 13 November 2008 from Far East Testing Centre, Shanghai, China.

Thermal Ceramics Fire Protection Systems Information, reference No. FM MS 01 PW, Rev.9 and No. FM 4.94, Rev.3.

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.