



CERTIFICATE NUMBER 18-LD1750170-PDA

EFFECTIVE DATE 24 Jan 2019

EXPIRATION DATE 23 Jan 2024

ABS TECHNICAL OFFICE London Engineering Department

CERTIFICATE OF

Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

THERMAL CERAMICS

located at

MERSEYSIDE, UNITED KINGDOM

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product Bulkhead, A-60 Class

Model FireMaster Marine Plus Blanket (48 Kg/m³, 40 mm + 40 mm)

This Product Design Assessment (PDA) Certificate remains valid until 23 Jan 2024 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

Nitin Tyagi, Senior Engineer

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

THERMAL CERAMICS

TEBAY ROAD

BROMBOROUGH WIRRAL MERSEYSIDE

United Kingdom CH62 3PH

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Fax:

Email: allan.beeston@morganplc.com

Web: <http://morganthermalceramics.com/firemaster>

Tier: 2 - PDA Issued

Product: Bulkhead, A-60 Class

Model: FireMaster Marine Plus Blanket (48 Kg/m³, 40mm+40mm).

Intended Service:

To form part of A-60 class vertical (bulkhead) fire boundary on ships and offshore units.

Description:

Two layers of 40 mm each (80 mm in total) of FireMaster Marine Plus Blanket of nominal density 48 Kg/m³ applied on steel core of minimum 5 mm thickness and one layer of 40 mm applied on stiffeners. The insulating blankets are held in place using anchors and washers, 12 sets per square meter with a maximum spacing of 350 mm.

Rating:

A-60 class fire division

Service Restriction:

1. Unit Certification is not required for this product.
2. Materials used in construction of the specimen for test shall not be replaced by any other materials.
3. Materials, except adhesives and seals, used in the construction shall be non-combustible type. Type approval certificates or tests reports shall be available for non-combustibility. Adhesives shall have low flame-spread characteristics.
4. Continuous compliance with the statutory requirements requires maintenance of the Full Type Approval. The scope of Type Approval is to comply with MSC.1/Cir. 1221 dated 1 December 2006.

Comments:

1. The Manufacturer has provided a declaration about the control of, or lack of Asbestos in this product.
2. Unless specifically directed by the Administration, this approval is not to be construed as a substitute of a flag Administration's approval for the purpose of SOLAS (Consolidated Edition 2014), as amended.
3. In those instances where flag administration may have their own specific requirements, flag Administration's approval may be needed. This certificate may not be used for EU and US flagged vessels (MED and/or USCG have their own specific/requirements).

Notes/Drawing/Documentation:

Far East Fire Testing Centre, Shanghai test report no. FT12007 dated 19 Jan 2012.

Terms of Validity:

This Product Design Assessment (PDA) Certificate 18-LD1750170-PDA, dated 24/Jan/2019 remains valid until 23/Jan/2024 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

STANDARDS

ABS Rules:

- 2018 Steel Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-1-1/7.15.

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Tier: 2 - PDA Issued

- 2018 Steel Vessels Under 90 Meters in Length 1-1-4/7.7, 1-1-A3, 1-1-A4.
- 2018 Offshore Support Vessels 1-1-4/7.7, 1-1-A3, 1-1-A4.
- 2018 High Speed Craft 1-1-4/11.9, 1-1-A3, 1-1-A4.
- 2018 Mobile Offshore Drilling Unit Rules 1-1-4/9.7, 1-1-A2, 1-1-A3.

National:

NA

International:

IMO Resolution MSC.307(88) (adopted on 3 December 2010) - IMO FTP Code 2010

Government:

NA

EUMED:

NA

OTHERS:

NA