



Marine & Offshore

Certificate number: 21544/C1 BV

File number: AC11300/142/003

Product code: 5230H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Pfleiderer Deutschland GmbH

Neumarkt - GERMANY

for the type of product

SURFACE LININGS

Duropol-flameprotect compact IMO

(Thickness from 3 mm to 15 mm)

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships Part C, Chapter 4

SOLAS 74 convention as amended, Regulations II-2/3, II-2/5, II-2/6, II-2/9, X/3

IMO Res. MSC.36(63) -(1994 HSC Code)- as amended, 7

IMO Res. MSC.97(73) -(2000 HSC Code)- as amended, 7

IMO Res. MSC.61(67)-(FTP Code) with IMO Res. MSC.307(88) (2010 FTP Code) article 8

IMO MSC/Circ.1120

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 16 Mar 2025

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 03 Aug 2021,

Jens Bauermeister



This certificate is recognized by Transport Canada

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Duropol-flameprotect compact IMO

Compact board coated with melamine resin on both sides.

Core: Impregnated glass fibre (white)
Coating: Melamine resin (black)
Density: 1900 kg/m³
Thickness: From 3 mm to 15 mm

2. DOCUMENTS AND DRAWINGS:

Technical data sheet for product "Flameprotect compact" dated 03/2009, from Thermopal GmbH.

3. TEST REPORTS:

3.1 - Thickness 3 mm:

Test reports N° SN08/6010.2 dated 04/02/2010, as per IMO FTP Code Annex 1 Part 5 [test standard: IMO Resolution A.653(16)], from TÜV NORD laboratories, Germany.

3.2 - Thickness 15 mm:

Test reports N° SN08/6010.3 dated 04/02/2010, as per IMO FTP Code Annex 1 Part 5 [test standard: IMO Resolution A.653(16)], from TÜV NORD laboratories, Germany.

4. APPLICATION / LIMITATION:

4.1 - The fitting aboard to be the same as used for the test.

4.2 - Approved material is considered as having low flame spread characteristics (as per IMO 2010 FTP Code Part 5).

4.3 - In application of FTP Code 2010 Annex 2 § 2.2, the product is expected to satisfy the requirement of smoke & toxicity of IMO 2010 FTP Code Part 2 without further testing.

4.4 - In application of FTP Code 2010 Annex 2 § 2.3, the product is expected to satisfy the requirement of maximum gross calorific value (e.g. 45 MJ/m²) without further testing as per ISO 1716.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The **Duropol-flameprotect compact IMO** is to be supplied by **Pfleiderer Deutschland GmbH** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **Pfleiderer Deutschland GmbH** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **Pfleiderer Deutschland GmbH** has declared to Bureau Veritas the following production site:

Pfleiderer Leutkirch GmbH
Wurzacher Str. 32
88299 Leutkirch
GERMANY

6. MARKING OF PRODUCT:

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

7. OTHERS:

7.1 - It is **Pfleiderer Deutschland GmbH's** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This Certificate supersedes the Type Approval Certificate N° 21544/C0 BV issued on 30/01/2020 by the Society.

*** END OF CERTIFICATE ***