



Marine & Offshore

Certificate number: 19457/D0 BV
File number: ACI1300/142/001 and 002
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

High Pressure Laminates (HPL):

Duropal HPL IMO / Duropal HPL Metallic IMO / Duropal HPL Individual IMO

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.307(88) (2010 FTP Code)
 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 is a renewal of certificate N° 19457/C1 BV expiring on 15/05/2022

This certificate will expire on: 15 May 2027

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 23 Mar 2022,

Jens Bauermeister

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:

High Pressure Laminates (HPL), type Duropal HPL IMO / Duropal HPL Metallic IMO / Duropal HPL Individual IMO
Melamine surfaced high pressure decorative laminates.

1.1 - **Duropal HPL IMO / Duropal HPL Metallic IMO**

Thickness from 0.6 mm to 1.2 mm, density 1350 kg/m³.

Tested on substrate non-combustible vermiculite board, 19 mm thick, density 750 kg/m³ (0.8 mm) or density 850 kg/m³ (1.2 mm)

Adhesive from H.B. Fuller Deutschland Produktions GmbH: Rakoll GXL-3 (Application rate 95 g/m²) or Rakoll 3401/D3 (Application rate 70 g/m²).

1.2 - **Duropal HPL Individual IMO**

Thickness of 1.2 mm, density 1350 kg/m³.

Tested on substrate non-combustible vermiculite board, 19 mm thick, density 750 kg/m³.

Adhesive from H.B. Fuller Deutschland Produktions GmbH: Rakoll GXL-3 (Application rate 94 g/m²).

2. DOCUMENTS AND DRAWINGS:

2.1 - **Duropal HPL IMO**

"Technical details Duropal-HPL IMO" dated March 2020.

2.2 - **Duropal HPL Metallic IMO**

"Technical details Duropal-HPLMetallic IMO" dated June 2014.

2.3 - **Duropal HPL Individual IMO**

"Technical data Duropal HPL Individual Motiv IMO" dated January 2022.

3. TEST REPORTS:

Test reports from DMT, Germany:

3.1 - **Duropal HPL IMO / Duropal HPL Metallic IMO**

3.1.1 - **Surface flammability**

Thickness 0.8 mm: Test report N° 20648737-10 dated 28/01/2015, as per IMO 2010 FTP Code Annex 1 Part 5.

Thickness 1.2 mm: Test report N° 8118360774-10 dated 14/12/2020, as per IMO 2010 FTP Code Annex 1 Part 5.

3.1.2 - **Smoke and toxicity**

Thickness 0.8 mm: Test report N° 20648737-20 dated 28/01/2015, as per IMO 2010 FTP Code, Annex 1 Part 2.

Thickness 1.2 mm: Test report N° 8118360774-20 dated 09/12/2020, as per IMO 2010 FTP Code Annex 1 Part 2.

3.1.3 - **Extension of thickness (0.6 mm)**

Technical statement ref. APS4-Hau/Mow dated 06/05/2020, from DMT, Germany.

3.2 - **Duropal HPL Individual IMO**

3.2.1 - **Surface flammability**

Test report N° 20663732-10b dated 15/12/2016, as per IMO 2010 FTP Code Annex 1 Part 5.

3.2.2 - **Smoke and toxicity**

Test report N° 20663732-20b dated 15/12/2016, as per IMO 2010 FTP Code Annex 1 Part 2.

4. APPLICATION / LIMITATION:

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

4.2 - Acceptable for use on any non-combustible and non-metallic substrate having:

- a minimum density of at least 638 kg/m³ with a thickness of 19 mm,

OR

- a minimum density of at least 750 kg/m³ with a thickness greater than 19 mm.

4.3 - Approved material is considered as having low flame spread characteristics (as per IMO 2010 FTP Code Part 5) and not producing excessive smoke and toxic products (as per IMO 2010 FTP Code Part 2).

4.4 - Calorific value to be less than 45 MJ/m² as per ISO 1716, where required.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The **High Pressure Laminates (HPL), type Duropal HPL IMO / Duropal HPL Metallic IMO / Duropal HPL Individual IMO** are 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 and designation.

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° 19457/C1 BV issued on 12/01/2021 by the Society.

***** END OF CERTIFICATE *****