

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Surface Material of Low Flame Spread

with type designation(s)

HOMAPAL HIGH PRESSURE METALLIC LAMINATES SERIES 100, 101, 102, 103, 200, 300, 400, 500, 700, 800 and 900

Issued to

Chemetal
EASTHAMPTON, United States

is found to comply with

DNV GL offshore standards
DNV GL rules for classification – Ships

Application :

Low flame spread surface material, not generating excessive quantities of smoke nor toxic products in fire. Approved for use as decorative (surface) material throughout the accommodation.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2020-06-30**.

Issued at **Høvik** on **2015-10-02**

for **DNV GL**

DNV GL local station: **New York**

Approval Engineer: **Martin Gjelstad**

Petter Langnes
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.

Job Id: **262.1-011526-3**
Certificate No: **TAF0000043**

Product description

"Homapal High Pressure Metallic Laminates Series 100, 101, 102, 103, 200, 300, 400, 500, 700, 800 and 900".

100, 101, 102, 103 Series consists of 99,8% anodized aluminium in thickness up to 0,025".

200 Series consists of copper, brass and aluminium foil on a HPL backer (impregnated craft paper). Total thickness 0,055".

300 Series consists of copper or brass metal foil on HPL backer. When dried the surface is sealed with UV cured lacquer named RD 1383 or RD 1384 in a thickness of ¼ mm to ½ mm.

400/500 Series consist of 99,8% aluminium in a thickness of 0,020". HPL backer may be fitted to the non- exposed side. The sheet is sealed with UV cured lacquer named RD 1383 or RD 1384 in a thickness of ¼ mm to ½ mm.

700 Series consists of bright aluminium and bright brass aluminium. Products #706 and #709 consists of Homapal copper are sealed with UV cured lacquer named RD 1383 or RD 1384 in a thickness of ¼ mm to ½ mm. Product #710, is stainless steel foil on HPL backer.

800 Series consists of metal foil (brass, copper/zinc and chrome plated brass) in a thickness of 0.016".

900 Series consist of 99,8% aluminium foil in a thickness of 0.025".

The metal foils are supplied and manufactured by Homapal Plattenwerke GmbH, Germany.

Application/Limitation

Each product or series are to be supplied with its manual for installation/application and use.

Maximum gross calorific value shall be documented separately where applicable, ref. SOLAS Chapter II-2 Reg. 5.3.2.

Any adhesive used, other than the one used during testing, has to be tested for low flame spread characteristics according to IMO 2010 FTP Code part 5.

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

Type Approval documentation

Certification in accordance with Standard for Certification No. 1.2, Type Approval, January 2013.

Test reports Nos. #100-1701-1, #100-1701-2, #100-1701-3 dated 23 January 2003, #100-1701-4 dated 27 January 2003, #100-1701-5 dated 4 February 2003, #100-1701-6 dated 5 February 2003 from VTEC Laboratories Inc. New York, USA.

Tests carried out

Tested according to IMO FTPC Parts 2 and 5 and in compliance with IMO 2010 FTP Code Ch. 8.

Marking of product

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

Periodical assessment

DNV GL'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 Standard for certification No. 1.2 Type Approval Item 4.