

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Surface Material of Low Flame Spread

with type designation(s)
Armaflex Ultima

Issued to

Armacell GmbH
Münster Nordrhein-Westfalen, Germany

is found to comply with

DNV GL offshore standards

DNV GL rules for classification – Ships

DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations

Application :

Approved for use as low flame spread surface material, not generating excessive quantities of smoke nor toxic products in fire.

This certificate is recognized by Transport Canada.

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

Issued at **Hamburg** on **2017-10-26**

This Certificate is valid until **2022-10-25**.

DNV GL local station: **Essen**

for **DNV GL**

Approval Engineer: **Timo Linn**

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Jörg Kallies
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: **262.1-002564-4**
Certificate No: **TAF00000SZ**

Product description

"Armaflex Ultima"

Composed of flexible elastomeric foam insulation based on a synthetic rubber.

Density: 58 kg/m³

Thickness: 3 – 32 mm

Colour: Blue

Application/Limitation

Approved for use on metallic substrate with thickness of at least 0.75 mm.

The product may be used on cold service pipe work/fittings for refrigeration system everywhere onboard, and for pipe work, fittings, air ducts and tanks insulation in cargo areas, mail rooms, baggage rooms and refrigerated compartments of service spaces, and exterior locations (SOLAS II-2/5.3.1.1). (Piping for hot or cold sanitary water can not be considered "cold service pipework/fittings".)

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.

Extent of application is to be considered and accepted for each case/project.

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

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2015.

Test reports Nos. 20673080-10a and 20673080-10b all dated 28 September 2017 from DMT GmbH & Co.KG.

Tests carried out

Tested according to IMO 2010 FTP Code, Annex 1, Part 5 and Annex 2, 2.2.

Marking of product

The product or packing is to be marked with name and address of manufacturer and type designation.

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "*Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)*", DNV GL confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

Certificate Retention Survey

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 Class Program DNVGL-CP-0338 Section 4.