DNV·GL

Certificate No:
TAF00000N8

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Thermal and sound insulation material with low flame-spread characteristics

with type designation(s)
AF/Armaflex Class 0

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 insulation material of low flame-spread characteristics, not generating excessive quantities of smoke nor toxic products in fire.

The material is not defined as non-combustible.

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 **Høvik** on **2017-05-31**
This Certificate is valid until **2022-05-30**.
DNV GL local station: **Essen**

for **DNV GL**

Approval Engineer: **Tessa Biever**

Marte Eknæs Edvardsen
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.

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Product description

"AF/Armaflex Class 0"
Composed of elastimeric foam based on a synthetic rubber basis.

Density: 45 - 65 kg/m^3
Thickness (with Armaflex adhesive based on polychloroprene): 6 - 50 mm
Thickness (equipped as self-adhesive): 6 - 32 mm

Pipes insulated with AF/Armaflex Class 0 may be supported using "Armafix" composed of AF/Armaflex with two non-exposed PET cubes cut into Armaflex and then covered by aluminium plates.

Application/Limitation

The product may be used on cold service pipework/fittings for refrigeration systems everywhere onboard, and for pipework, 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 and cold sanitary water can not be considered "cold service pipework/fittings".)

The product satisfies the requirement for maximum calorific value (ref. Solas Chapter II-2, Reg 5.3.2.2) without further testing.

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 application and use.

Type Approval documentation

Tests carried out

Tested according to IMO 2010 FTP Code part 5 and Annex 2 item 2.3.

Marking of product

The product or packing is to be marked with name 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 listed in this certificate is in accordance with Transport Canada's requirements.

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 Class Programme DNVGL-CP-0338, Section 4.