

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Thermal and sound insulation material with low flame-spread characteristics**with type designation(s)
Class 0 Armaflex

Issued to

Armacell (Guangzhou) Ltd.
GUANGZHOU GUANGDONG, China

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.****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 **2017-11-27**This Certificate is valid until **2022-11-26**.for **DNV GL**DNV GL local station: **Guangzhou FiS**Approval Engineer: **Nanna Jacobsen**

Mårten Schei-Nilsson
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: **262.1-015834-3**
Certificate No: **TAF00000UE**

Product description

"Class 0 Armaflex"

is an elastomeric insulation foam for pipe insulation.

Nominal thickness: 9 – 32 mm.

Density: 41 kg/m³

Color: Black

Maximum organic content: 45-60%

Application/Limitation

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

Approved for all colour variations.

The combustible insulation with low-flame spread characteristics may be used in cargo spaces, mail rooms, baggage rooms and refrigerated compartments of service spaces as well as for cold service pipework/fittings for refrigeration systems (SOLAS II-2/5.3.1.1). Piping for hot and cold sanitary water is not regarded as "cold service pipe work/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.

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

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 Standard for Certification No. 1.2, Type Approval, January 2013.

Test reports Nos. FT13164 and FT13165 both dated 8 June 2013 from Far East Fire Testing Centre (FTFTC), Shanghai, China.

Tests carried out

Tested according to IMO 2010 FTP Code Part 5 and Annex 2 Item 2.2 and 2.3.

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 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 DNVGL-CP-0338 Section 4.