

**TYPE APPROVAL CERTIFICATE****This is to certify:****That the Thermal and sound insulation material with low flame-spread characteristics**with type designation(s)  
**K-FLEX IC CLAD**

Issued to

**L'Isolante K-Flex S.p.A.**  
**Roncello MB, Italy**

is found to comply with

**DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations**  
**DNV GL rules for classification – Ships**  
**DNV GL offshore standards****Application :****Approved for use as combustible insulation material with low flame-spread characteristics,  
not generating excessive quantities of smoke nor toxic products in fire.****This certificate is recognized by Transport Canada.**Issued at **Høvik** on **2019-02-04**for **DNV GL**This Certificate is valid until **2020-12-31**.DNV GL local station: **Milan**Approval Engineer: **Helge Bjørnarå****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: **262.1-012247-8**  
Certificate No: **TAF000007U**  
Revision No: **1**

## Product description

"K-FLEX IC CLAD",  
composed of 25 mm "K-FLEX ST" (elastomeric foam with density  $55 \pm 10 \text{ kg/m}^3$ ) faced on one side with a 0.2 mm silver foil faced glass fabric laminate, bonded to the "K-FLEX ST" with adhesive ATP 60 g/m<sup>2</sup>.

Max. thickness: 25 mm

The product is also manufactured at the following premises:

- L'Isolante K-Flex SRL, Roncello MB, Italy
- K-Flex Polska Sp. z o.o., Wielenin-Kolonia 50B, 99-210 Uniejów, Poland

## Application/Limitation

Approved for use as combustible insulation material with low flame-spread characteristics, not generating excessive quantities of smoke nor toxic products in fire.

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".

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

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 application, use and maintenance.

## Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, September 2018.

Test Report No. 308381 issue No.1 dated 21 June 2011 from Exova, Warrington, UK.

## Tests carried out

Tested in accordance with IMO FTP Code Part 5 and Annex 2 item 2.2 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 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.