



EC TYPE EXAMINATION (MODULE B) CERTIFICATE

This is to certify that:

LLOYD'S REGISTER VERIFICATION LIMITED (LRV), designated as a "notified body" under the terms of the Merchant Shipping (Marine Equipment) Regulations 2016 (S.I. 2016 No. 1025) did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the essential Fire protection equipment requirements of Marine Equipment Directive (MED) 2014/90/EU and Commission Implementing Regulation (EU) 2017/306 indicating design, construction and performance requirements and testing standards for marine equipment, subject to any conditions in the Design Appraisal Document attached hereto.

Manufacturer (Applicant)	L'Isolante K-Flex Srl
Address	Via Leonardo da Vinci, 36 20877 Roncello (Mi) Italy
Reference Regulation Item (No & Item designation)	Regulation 2017/306 MED/3.18 - SURFACE MATERIALS & FLOOR COVERINGS WITH LOW FLAME-SPREAD CHARACTERISTICS (e)ADHESIVES USED IN THE CONSTRUCTION OF "A", "B" & "C" CLASS DIVISIONS
USCG Category Number	164.112 - SURFACE MATERIALS AND FLOOR COVERINGS WITH LOW FLAME SPREAD CHARACTERISTICS (Interior Finish)
Product Type	MATERIAL HAVING LOW FLAME SPREAD CHARACTERISTICS & NOT CAPABLE OF PRODUCING EXCESSIVE SMOKE & TOXIC PRODUCTS OF COMBUSTION
Product Description	Fire-Resisting Material - Type "K-Flex IC-CLAD" Elastomeric Foam Insulation
Specified Standard	IMO Res. MSC.307(88) - (2010 FTP Code) Annex 1 Part 5 and Annex 2

The attached Design Appraisal Document (schedule) forms part of this certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Date of issue 8 August 2017 Expiry date 7 August 2022

Certificate No. MED 1750149

Signed



Sheet No 1 of 3

Name

J. M. Evans
For and on behalf of Lloyd's Register Verification
LRV EC Distinguishing No. 0038

Note:

This certificate is issued under the authority of the MCA.

This certificate is not valid for equipment; the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify the notified body named on this certificate of any modification or changes to the equipment in order to obtain a valid Certificate.

USCG-EU MRA - This product has been assigned a U.S. Coast Guard Module B number: USCG Module B number: 164.112/EC0038 to note type approval to Module B only as it pertains to obtaining U. S. Coast Guard approval as allowed by the "Corrigendum to Council Decision 2004/425/EC of 21 April 2004 on the conclusion of an Agreement between the European Community and the United States of America on the mutual recognition of certificates of conformity for marine equipment."

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Lloyd's
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Document number MED 1750149
Issue number 1

DESIGN APPRAISAL DOCUMENT

Date 8 August 2017	Quote this reference on all future communications SOUTSO/SFS/TA/JE/WP30056800
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ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. MED 1750149

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

APPROVAL/EXAMINED DOCUMENTATION

Exova Warringtonfire, Holmesfield Road, Warrington, WA1 2DS, United Kingdom, Fire Test Report No. 308381 dated 21st June 2011.

CONDITIONS OF CERTIFICATION

- Restricted Application:** Restricted to steel substrates of 1mm thickness for chilled water pipes and air conditioning systems
- Consisting of: one layer of outer facing 'K-Flex IC Clad Silver Foil' glass filament fabric (0.2mm thick, weight 204g/m²) bonded with acrylic emulsion PSA adhesive manufactured by 'ATP' (application rate 60 g/m²) to one layer of 'K-Flex ST' closed cell elastomeric foam insulation (25 mm thick, density 55kg/m³). Insulation bonded to steel substrate with 'Locklite Super Glue' adhesive manufactured by 'Loctite'
- Smoke and toxicity criteria is satisfied by meeting the total heat release (Qt) and peak heat release rate (qp) as stated in IMO Fire Test Procedures Code, Annex 2, Section 2.2
- Composition of individual components, including adhesives and any flame retardants, to be maintained in production in accordance with originally tested composition formula
- Production items of the subject equipment are to be manufactured in accordance with either an approved Production Quality Assurance system (Module D), a Product-Quality assurance system (Module E) or a Product Verification Process (Module F). The wheelmark cannot be affixed to the product until a conformity assessment module is in place
- This product has been assigned a U.S. Coast Guard Module B number USCG Approval Category 164.112 /EC0038 to note type approval to Module B only as it pertains to obtaining U. S. Coast Guard approval as allowed by the "Corrigendum to Council Decision 2004/425/EC of 21 April 2004 on the conclusion of an Agreement between the European Community and the United States of America on the mutual recognition of certificates of conformity for marine equipment"

In those instances where the Notified Body conducting the conformity assessment in accordance with either Module D, E or F of the Marine Equipment Directive is not Lloyd's Register Verification Ltd., such Notified Body would use the above U.S. Coast Guard Module B number to provide the manufacturer with the U.S. Coast Guard approval number by noting it on the Certificate of Conformity, thereby authorizing the manufacturer to mark the product accordingly

Note: For products placed on board U.S. flagged ships there is no declaration of conformity required to meet U.S. Coast Guard requirements

- Each item, batch or lot of the equipment is to be issued with a "Declaration of Conformity" and have the "Mark of Conformity" affixed after a conformity assessment module is in place



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PLACE OF PRODUCTION

L'Isolante K-Flex SpA
Via Leonardo da Vinci 36
20877 Roncello (MB)
Italy

K-Flex Polska Sp z.o.o
Wielenin-Kolonia 50B
99-210 Uniejow
Poland



Jessica Evans
Senior Specialist
Statutory Fire & Safety
Southampton Technical Support Office, Marine & Offshore
For and on behalf of Lloyd's Register Verification
LRV EC Distinguishing No. 0038