

## Type Approval Certificate Extension

This is to certify that Certificate No. 00/20052 (E2) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

<b>PRODUCER</b>	L'ISOLANTE K-FLEX Srl Via Leonardo da Vinci, 36 20040 Roncello (Milano) Italy
<b>DESCRIPTION</b>	Elastomeric closed cell low flame spread foam insulation based on synthetic rubber in form of pipes or sheets with glue for ST or acrylic adhesive for STA with a temperature range of -200°C to +105°C as per technical data sheets. For temperatures below -50°C the Technical Department of L'ISOLANTE K-FLEX Srl has to be contacted. Sheets from 6 to 50 mm and pipe diameters from 6 to 160 mm with thickness from 6 to 50 mm
<b>TYPE</b>	K - Flex ST and K - Flex STA
<b>APPLICATION</b>	As insulation in marine and offshore installations classed or intended for Classification with Lloyd's Register for cold service systems, cargo spaces and refrigerated compartments of service spaces.
<b>STANDARD</b>	IMO MSC 61(67) Annex 1, Part 2 and 5

*"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."*

*The attached Design Appraisal Document No. HMD 5731-01, Issue 2 dated 17.01.2011 and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

All other details remain as the previous Certificate No. 00/20052 (E2) to which this extension should be attached.

<b>Certificate No.</b>	00/20052 (E3)
<b>Issue Date</b>	17 January 2011
<b>Expiry Date</b>	31 August 2015
<b>Sheet</b>	1 of 1

  
Olaf Schmidt  
Hamburg Design Support Centre  
Lloyd's Register EMEA

Lloyd's Register EMEA  
71 Fenchurch Street, London EC3M 4BS



# Marine Design Appraisal Document

Lloyd's Register EMEA  
Hamburg Design Support Centre  
Am Sandtorkai 41  
20457 Hamburg, Germany  
Telephone +49 (0)40 328107 - 0 Fax +49 (0)40 328107 - 480  
Email: hamburg-design-support@lr.org

Date  
17 January 2011

Quote this reference on all future communications  
HPC 0510294/26215-11/OS/HR

**ISSUED TO: L'ISOLANTE K-FLEX SRL  
FOR: K-FLEX ST/STA  
TYPE APPROVAL CERTIFICATE NO. 00/20052 (E2)**

**This Marine Design Appraisal Document supersedes and cancels document number  
HMD 5731-01, Issue No. 1, dated 01.11.2005**

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register's Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

## APPROVAL DOCUMENTATION

LR6606	Lloyd's Register's Approval Services- Request for Quotation	26.07.2005
LP ST – 03/2000 – DE	Catalogue (price list) of K- FLEX ST	03.2000
K-FLEX ST	Product description	undated
K-FLEX ST	Technical leaflet for pipes and sheets	undated

## TEST REPORTS

MLN1000660	Visit Report from LR Milan	09.06.2010
A070392	Test Report for Surface Flammability, IMO A 653(16)	10.07.2000
128586	Test Report, IMO MSC 61(67) Annex 1, Part 2 (Ref.1)	10.12.2002
164392	Test Report, IMO MSC 61(67) Annex 1, Part 5	11.06.2007
169444	Test Report, IMO MSC 61(67) Annex 1, Part 2	11.01.2008

  
Olaf Schmidt  
Senior Surveyor in Charge  
Engineering Systems  
Hamburg Design Support Centre  
Lloyd's Register EMEA  
T +49 (0)40 328107-460  
E olaf.schmidt@lr.org

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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**Supplementary Type Approval Terms and Conditions**

*Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.*

*Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.*

*Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.*

*Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the LR Type Approval System Procedure.*

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**Subject: Refrigeration and Air Conditioning**  
**Product: Thermal Insulation Panels**

Producer/Licence No.		Description of Product			Cert. No.
Type	Details of Approval	Application	Remarks		
<p>L'ISOLANTE K-FLEX Srl  Via Leonardo da Vinci, 36  20040 Roncello (Milano)  Italy</p>	<p>K-Flex ST  and  K-Flex STA</p>	<p>Elastomeric closed cell low flame spread foam insulation based on synthetic rubber in form of pipes or sheets with glue for ST or acrylic adhesive for STA with a temperature range of -200°C to +105°C as per technical data sheets. For temperatures below -50°C the Technical Department of L'ISOLANTE K-FLEX Srl has to be contacted. Sheets from 6 to 50 mm and pipe diameters from 6 to 160 mm with thickness from 6 to 50 mm</p>	<p>As insulation in marine and offshore installations classed or intended for Classification with Lloyd's Register for cold service systems, cargo spaces and refrigerated compartments of service spaces only.</p>	<p>Expires: 31 August 2015</p>	<p>00/20052 (E3)</p>