



MARINE DIVISION

Certificate number: 23355/A0 BV

File number: ACI 1360/006/001

Product code: 5225H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

www.veristar.com

## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**KAIMANN GmbH**

Hövelhof - GERMANY

*for the type of product*

**INSULATION MATERIALS FOR PIPING**

"KAIFLEX KKplus"

**Requirements:**

BV Rules, Part C, Chapter 4 - SOLAS 74 Convention, as amended, Regulations II-2/3.29, II-2/3.40.4, II-2/3.40.5, II-2/9.7.1.1.1, II-2/9.7.4.4.3.1, II-2/5.3.1.1, II-2/5.3.2.4 and II-2/6.2 - IMO Resolution A.653(16) - IMO FTPC, Annex 1, Part 2 & Part 5.

*This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 25 May 2016**

For BUREAU VERITAS,

At BV HAMBURG, on 25 May 2011,

Udo Storm



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

## **THE SCHEDULE OF APPROVAL**

### **1. PRODUCT DESCRIPTION:**

"KAIFLEX KKplus" is low flame spread extruded closed cell synthetic rubber.

Density: 60-110 kg/m<sup>3</sup>.

Thickness range: 6, 9, 13, 16, 19, 25, 32, 40 & 50 mm.

Size:

plates: 2.00 m x 1.00 m

in rolls: 3.00 m up to 60 m length, depending on the thickness

pipe insulating materials: 2.00 m length.

Adhesive: "KAIFLEX Spezialkleber".

### **2. DOCUMENTS AND DRAWINGS:**

- As per the Manufacturer's Declaration of conformity dated 02.09.2010.

- Change of adhesive name: as per Manufacturer's Declaration dated 06.05.2011.

### **3. TEST REPORTS:**

3.1 - Thickness 6 mm: Type tested in accordance with FTP Code Annex 1 Part 5 [Testing standard: IMO Resolution A.653(16)] by TUV, Hamburg, Germany. Test report n° SN99.82.1 dated November 9, 1999.

3.2 - Thickness 50 mm: Type tested in accordance with FTP Code Annex 1 Part 5 [Testing standard: IMO Resolution A.653(16)] by TUV, Hamburg, Germany. Test report n° SN01/1466.1 dated October 18, 2001.

### **4. APPLICATION / LIMITATION:**

4.1 - Approved for use as low flame spread surface material. In addition, the specimen tests results are showing compliance with FTP Code Annex 2 paragraph 2-2 for smoke & toxicity requirements.

4.2 - Approved for use as insulation of pipes fittings for refrigeration systems and chilled water piping for air-conditioning.

4.3 - The fitting aboard to be the same as used for the test.

### **5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The product is to be manufactured, examined and tested by **KAIMANN GmbH - 33161 Hövelhof - GERMANY** in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.

5.2 - Production sites are to be recognized by Bureau Veritas as per NR320 for HBV products. To this end **KAIMANN GmbH - 33161 Hövelhof - GERMANY** has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.

5.3 - **KAIMANN GmbH - 33161 Hövelhof - GERMANY** has declared to Bureau Veritas that the type of product described in this certificate may be manufactured at the following production site:

**KAIMANN GmbH  
Hansastraße 2 - 5  
33161 Hövelhof  
GERMANY**

### **6. MARKING OF PRODUCT:**

The product or packing is to be marked with manufacturer name, type, designation and fire-technical rating.

### **7. OTHERS:**

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the surface linings at any time and that **KAIMANN GmbH - GERMANY** will accept full responsibility for informing shipbuilders of their sub-contractors of the proper methods of fitting and general maintenance of the insulating materials and the conditions of this approval.

7.2 - This certificate is based on the certificate Type Approval Certificate N° 07635/C1 BV issued on 23/09/2010 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*