

MARINE DIVISION

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Certificate number: 21667/A0 BV

File number: ACI 1360/25/1

Product code: 2265H

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

TYPE APPROVAL CERTIFICATE

This certificate is issued to

SAGI S.A.
CHAMPTOCÉ-SUR-LOIRE - FRANCE

for the type of product

PIPE CLAMPS

SAGICAL

Regulations and standards:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of High Speed Crafts
- BUREAU VERITAS Rules for the Classification of Offshore Units
- BUREAU VERITAS Rules for the Classification of Naval Ships

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 of the Regulations and standards mentioned above.

This certificate is valid until: 09 Apr 2014

At Neuilly, on: 09 Apr 2009

For BUREAU VERITAS,
By order of the Secretary

L.COURREGELONGUE

Approval office



Local office: BV NANTES

Surveyor: J. Gaurin



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. 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

SAGICAL Pipe Clamps

1.1 Design

Insulating supports are manufactured in PIR for the central part and assembled with two crowns of K-FLEX glued on each side. The unit is covered with a black vapor barrier. The longitudinal closing of the unit is ensured by a self-adhesive cover protected by a silicone protection.

1.2 Properties

Area of application Average maximum temperature	+105 °C
Average minimum temperature	-45 °C
Specify gravity	80 kg/m ³
Heat conductivity	0.036 W/(m.K) à 0 °C
Dimension	42 mm pour Ø ≤ 114 mm 92 mm pour Ø > 114 mm

2. DOCUMENTS AND DRAWINGS

SAGI K-Flex documentation dated 19/05/2008

3. TEST REPORTS

- LNE certificate N° E0550357 - CEMAT1 according to EN 11925-2 (2002) dated 24/05/2004
- LNE Test report H010340 CEMATE/8 according to EN 11925-2 (2002) 26/11/2008
- Reaction to Fire Certificate granted to L'isolante K Flex SRL for Insulating elastomeric tubes and sheets according to NF EN 13823, NF EN ISO 11925-2

4. APPLICATION / LIMITATION

- 4.1 For use as insulating material in refrigeration systems and chilled water piping for air-conditioning systems and approved for use as a low flame spread surface material according to SOLAS 74 as amended and HSC Code.
- 4.2 Approval valid for ships having to comply with SOLAS 74 Convention, as amended, and for units having to comply with IMO Resolution A.649 (The "MODU Code").
- 4.3 Calorific value to be less than 45 MJ/m² as per ISO 1716:1973.
- 4.4 The manufacturer's instruction manual should be kept on board.

5. PRODUCTION SURVEY REQUIREMENTS

- 5.1 The products are to be manufactured, examined and tested by the manufacturer in accordance with the approved type described in this certificate and Bureau Veritas Rules and Regulations stated on the front page of this certificate.
- 5.2 Production sites are to be recognized by Bureau Veritas as per NR 320 for HBV products. To this end, the manufacturer has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.
- 5.3 The manufacturer has declared to Bureau Veritas that the products detailed in this certificate are manufactured at the production site stated on the front page of this certificate.
- 5.4 Bureau Veritas certificate is not required for the product to be fitted on board units to be classed with Bureau Veritas.

6. MARKING OF PRODUCT

- Manufacturer's name or logo
- Product name

7. OTHERS

This approval is given with the understanding that the manufacturer will accept full responsibility for informing shipbuilders or their sub-contractors of the proper methods of fitting and general maintenance of the products and of the conditions of this approval.