

MARINE DIVISION
17 Bis Place des Reflets - La Défense 2
92400 Courbevoie - France
Tel. 33 1 42 91 53 48
Fax 33 1 42 91 28 94



Certificate N°:
01865/E1 BV
The attached Schedule forms part of the certificate
File Number : ACI 4000/014/003
Product Code : 5302H



CERTIFICATE OF TYPE APPROVAL

This is to certify that the product identified below was found to be in compliance with the relevant hereunder stated Regulations & standards

CABLE PENETRATIONS IN FIRE DIVISIONS

"A" class bulkhead and deck cable transits - Type "Geauello system with compound E950"

MANUFACTURED BY:

AIK Flammadur Brandschutz GmbH
Kassel - GERMANY

SPECIFIED REGULATIONS & STANDARDS :

Bureau Veritas Rules for the Classification of Steel Ships, Part C, Chapter 4 - SOLAS 1974 Convention, as amended by 2000 SOLAS Amendments, Reg., II-12/9.3.1 - IMO Resolution MSC61(67), FTP Code, Annex 1, Part 3 - IMO Resolution A754(18).

The Approval is valid until : 11.07.2006

BUREAU VERITAS HAMBURG



At Paris la Défense, on : 05.02.2003

J. BENOIT
For the Secretary

This Certificate remains valid until the date stated on, hereunder, unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory into service.

This Certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested.

This Certificate is not valid without the stamp of the above mentioned by BUREAU VERITAS Inspection Center.

The manufacturer should notify BUREAU VERITAS of any modification or changes to the equipment in order to obtain a valid Certificate.

The latest published Regulations or Standards referred to, above, and the Marine Division General Conditions are applicable.



THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

"A" class bulkhead and deck cable transits - Type "Geaquello system with compound E950"

Composed of a steel bulkhead/deck coaming welded to the divisions and filled with "Geaquello E795, E950 and E292".

1.1- Maximum steel coaming dimensions for decks

- 500 x 250 x 205 x 5 mm (width x length x depth x thickness)
- 119 x 5 mm (diameter x thickness)

Minimum steel coaming dimensions for decks

- 100 x 100 x 205 x 5 mm (width x length x depth x thickness)

1.2- Maximum steel coaming dimensions for bulkheads

- 500 x 250 x 230 x 5 mm (width x length x depth x thickness)

Minimum steel coaming dimensions for bulkheads

- 90 x 90 x 205 x 5 mm (width x length x depth x thickness)

2. DESIGN DRAWINGS and/or SPECIFICATIONS

2.1- As per the manufacturer's drawings n°271.142 891.GZ (4 sheets) and 271.149 498.GZ (4 sheets).

2.2- As per the Manufacturer's specifications.

3. TYPE TEST REPORTS / LABORATORY RECOGNITION STATUS

Test reports N°GH95.27.1 and GV95.47.1 both dated February 28, 1997 as per IMO FTP Code Annex 1 Part 3 [testing standard: IMO Resolution A.754(18)] from TÜV Nord, Germany.

4. MATERIALS and/or COMPONENTS REQUIRED TO BE TYPE APPROVED

Rockwool "ISOVER Wired Mats MDS" (nominal density 90 kg/m³) manufactured by Grünzweig and Hartmann AG, Germany. Test report N°NU97.1.1 dated April 30, 1997 as per IMO FTP Code Annex 1 Part 1 [testing standard: IMO Resolution A.799(19)] from TÜV Nord, Germany.

The fire tests were conducted with mineral wool minimum density 90 kg/m³; any alternative previously proven and approved A-class insulation giving at least an equivalent insulation performance can be used.

5. OTHER MATERIALS and/or COMPONENTS

Not applicable.

6. APPLICATION / LIMITATION OF USE

6.1- Approved for use as cable penetrations in A-0/A-60 class steel divisions.

6.2- No more than 40% of the inside cross-sectionnal area of each transit should be occupied by cables.

6.3- 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").

7. PRODUCTION SURVEY REQUIREMENTS

In accordance with provisions of the Society's Rule Note NR 320 R1, as per H_{BV} products : arrangements shall be made for a Society's Surveyor to carry out, on a periodic basis, visits of the the Manufacturer's premises and product audits.

8. ON BOARD INSTALLATION & MAINTENANCE REQUIREMENTS

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

8.2- Flame spread, smoke characteristics and calorific value of the lining to be as per Rule requirements.

9. MARKING FOR IDENTIFICATION

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

10. OTHERS

10.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that the Manufacturer will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

10.2 - This certificate supersedes Type Approval Certificate N° 01865/E0 BV issued on 2001-07-11 by the Society.

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