

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class B Bulkhead**with type designation(s)
B50CGa type B-15 Class Bulkhead panel

Issued to

Huanan Building Materials (Shenzhen) Co., Ltd.
Shenzhen, Guangdong, China

is found to comply with

DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations
DNV GL rules for classification – Ships
DNV GL offshore standards**Application :****Approved for use as a vertical fire retarding division of class B-15.****This certificate is recognized by Transport Canada.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2019-08-19**This Certificate is valid until **2024-08-18**.for **DNV GL**DNV GL local station: **Guangzhou FiS**Approval Engineer: **Synnøve Bolstad Eri**

Mårten Schei-Nilsson
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

"B50CGa type B-15 Class Bulkhead panel"

bulkhead panels consisting of an insulation core of 27 mm air gap with 0.6 mm corrugating mini-hole plate (0.6 mm thick, ladder shaped, galvanic steel plate) in the centre and 10.9 mm rock wool "ABM-SR" (density of 150 kg/m³), from Shanghai New Type Building Material Rock Wool Factory, on each side. Both ends of the panels is fully insulated 50 mm in the longitudinal direction with rock wool (thickness 48.8 mm). The insulation core is covered with 0.6 mm galvanic steel plates on both sides, bonded with adhesive "YEBOND2002X/YEBOND8001" from Shanghai Hansi Industrial Co., Ltd. The panels are connected to each other with connector clip fitted at the ends of each panels.

Total thickness of the panels is 50 mm.

For further details see the drawing listed under Type Approval documentation below.

Application/Limitation

Approved for use as a vertical fire retarding division of class B-15.

Maximum size of bulkhead panels: 600 mm x 2470 mm (W x H)

Any surface materials used have to be approved for smoke and toxicity and low flame-spread characteristics (IMO 2010 FTP Code parts 2 and 5) when required according to relevant rules and regulations.

Any adhesive used, other than the one used during testing, has to be tested for low flame spread characteristics according to IMO 2010 FTP Code part 5.

Each product is to be supplied with its manual for installation and use.

Type Approval documentation

Certification in accordance with Class Program DNVGL-CP-0338, September 2018.

Test report No. FT07012 dated 25 January 2007 from Far East Fire Testing Centre, Shanghai, China.

Drawing No. Q354HN22-00SY, Rev. 0 (9 pages) dated 6 November 2006 from the manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code Part 3 and in compliance with IMO 2010 FTP Code Ch.8.

Marking of product

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

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)", DNV GL confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

Periodical assessment

DNV GL surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Program DNVGL-CP-0338, Section 4.