

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Class H Fire Wall and Bulkhead

with type designation(s)
KC-B-301

Issued to

KCC Corporation Ltd. Gimcheon Plant
Gimcheon Gyeongsangbuk-do, Republic of Korea

is found to comply with
DNV GL offshore standards

Application :

Approved for use as a vertical fire resisting division of class H-120.

Issued at **Høvik** on **2017-08-29**

This Certificate is valid until **2022-08-28**.

DNV GL local station: **Ulsan**

for **DNV GL**

Approval Engineer: **Tessa Biever**

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

"KC-B-301"

steel bulkhead insulated with three layers of "KCC Cerakwool New-Bio 1100" blankets as follows:

- First (inner) layer: 38 mm, 96 kg/m³
- Second layer: 38 mm, 128 kg/m³
- Third (outer) layer: 50 mm, 128 kg/m³

Insulation joints of one layer to be fully covered by the next layer (staggered joints).

Insulation to be fastened to steel bulkhead by Ø2.9 mm welded stud pins and 25-40 mm washers. Horizontally at distances of 138 mm to each steel angle stiffener, and at distances of 194 mm between stiffeners. Vertically at distances of 50 mm (both on upper and lower side) to first and third horizontal insulation layer joint, else 240 mm.

The installation is to be carried out according to the manufacturers drawing No. CF001 dated 2012-11-12.

Application/Limitation

Approved for use as a vertical fire resisting division of class H-120.

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

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

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2015.

Test report KOMERI-0402-12T1602 dated 2013-04-04 from Korea Marine Equipment Research Institute (KOMERI).

Drawing No. CF001 dated 2012-11-12 from KCC Corporation Ltd. Gimcheon Plant, Korea.

Tests carried out

Tested in accordance with IMO 2010 FTP Code Part 3 with the hydrocarbon time-temperature curve specified in ISO 843-3.

Marking of product

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

Periodical assessment

DNV GL's 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 Programme DNVGL-CP-0338, Section 4.