

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Horizontal Class A Division**

with type designation(s)

A-60 CLASS DECK BD-105

Issued to

Byucksan Youngdong Plant**Yeongdong-gun,, Chungcheongbuk-do, Republic of Korea**

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 horizontal fire retarding division of class A-60****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 **2019-01-01**This Certificate is valid until **2023-12-31**.for **DNV GL**DNV GL local station: **Seoul**Approval Engineer: **Thorvald Furuseth**

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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.



Job Id: **262.1-001554-9**
Certificate No: **TAF000013F**

Product description

"A-60 Class Deck BD-105"

composed of steel deck insulated on stiffeners side with Rockwool board (made by Byucksan Youngdong Plant) of density 120 kg/m³, thickness 50 mm between and upon stiffeners.

Maximum pinning distance:

In general 300 mm and 150 mm upon and around stiffeners and from edges.

For further details see approved drawing listed below.

Application/Limitation

Approved for use as a horizontal fire retarding division of class A-60.

Insulation material shall be approved as non-combustible (IMO 2010 FTP Code Part 1). 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.

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, September 2018.

Test report No. AK2013-0147 dated 2 August 2013 from Fire Insurers Laboratories of Korea (FILK), Korea.

Drawing A-60 Deck Type BD-105 Rockwool Board 120 kg/m³ page 1 and 2 dated 14 June 2013 from manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product or packing 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 listed in this certificate is in accordance with Transport Canada's requirements.

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.