DNV·GL

Certificate No:
TAF00001A1

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Class A Bulkhead

with type designation(s)
A-30 Class Bulkhead of type DSSIX AS30

Issued to
DOOSUNG Insulation Material Co., Ltd.
Yangsan-si, Gyeongsangnam-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 used as Class A-30 Bulkhead.

Restricted application: Fire against insulated side.

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 **2019-09-05**
This Certificate is valid until **2024-09-04**.
DNV GL local station: **Gimhae Station**

Approval Engineer: **Joanna Kowalczuk**

for **DNV GL**

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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Product description
A-30 Class Bulkhead of type "DSSIX-AS30"
Composed of a structural steel bulkhead insulated on stiffened side with 40 mm spray insulation of type "DSSIX-120K" (density 120 kg/m^3) from DOOSUNG Insulation Material Co. Ltd.. 20 mm insulation of same type is fitted around the stiffeners and is used as filling of the stiffeners cavity.

See drawing mentioned under Type Approval documentation below for further details.

The products may be manufactured at DOOSUNG Insulation Material Co. Ltd, Yangsan-si, Gyeongsangnam-do, Korea

Application/Limitation
Approved for use as a vertical fire retarding division of class A-30.

General application: fire against either side.

Any surface materials used have to be approved for smoke and toxicity and low flame-spread characteristics (IMO 2010 FTP Code Annex 1 Parts 2 and 5) when required according to relevant rules.

To be applied in accordance with "Installation and Maintenance Manual for Spray Insulation".

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. KOMERI-0402-19T0732 dated 2019-05-31 from KOMERI, Busan, Korea.

Drawing no. DSIM-SP103, Type: DSSIX-AS30, dated 2019-03-11 from the manufacturer (2 pages).

Installation and Maintenance Manual for Spray Insulation, from DOOSUNG Insulation Material Co. Ltd.

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/s listed in this certificate is/are 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.