

TYPE APPROVAL CERTIFICATE

This is to certify:**That the FRP Grating**

with type designation(s)

FRP Grating: MY-B/pl-16, MY-B/BF

Issued to

**Suzhou City Muyi Shipping Equipment Co., Ltd.
Suzhou City, China**

is found to comply with

DNV GL offshore standards**DNV GL rules for classification – Ships****DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations****Application :****For use in locations according to enclosed Structural Fire Integrity Matrix.****Application is to be considered and accepted for each case/project.****Product approved by this certificate is accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2018-01-15**This Certificate is valid until **2023-01-04**.DNV GL local station: **Shanghai**for **DNV GL**Approval Engineer: **Timo Linn**

**Jörg Kallies
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

"MY-B/pl-16" and "MY-B/BF"

mainly composed of resin, glassfiber yarn, curing agent and a certain proportion of chemical additives.

1. MY-B/pl-16
Colour: grey
Thickness: 4 mm
Density: 1800-2200 kg/m³
2. MY-B/BF
Colour: milky white
Thickness: 5mm
Density: 1800-2200 kg/m³

Figure 1: Tests results according to ASTM E84-07

Category as described above	Product name (ref. test report)	Flame Spread Index	Smoke Developed Index
1.	MY-B/pl-16, RM Grating	5	15
2.	MY-B/BF, RM Grating	0	0

(RM = Rectangular Mesh, SM = Square Mesh)

Application/Limitation

For use in locations according to the below Structural Fire Integrity Matrix.

Structural Fire Integrity Matrix.

Location	Service	Fire Integrity
Machinery Spaces	Walkways or areas which may be used for escape, or access for fire fighting, emergency operation or rescue	NO
	Personnel walkways, catwalks, ladders, platforms or access areas other than those described above	NO
Cargo Pump Rooms	All personnel walkways, catwalks, ladders, platforms or access areas	NO
Cargo Holds	Walkways or areas which may be used for escape, or access for fire fighting, emergency operation or rescue	NO
	Personnel walkways, catwalks, ladders, platforms or access areas other than those described above	YES
Cargo Tanks	All personnel walkways, catwalks, ladders, platforms or access areas	Yes See note 1 & 2
Fuel Oil Tanks	All personnel walkways, catwalks, ladders, platforms or access areas	Yes See note 1
Ballast Water Tanks	All personnel walkways, catwalks, ladders, platforms or access areas	Yes See note 1
Cofferdams, void spaces, double bottoms, pipe tunnels, etc.	All personnel walkways, catwalks, ladders, platforms or access areas	Yes See note 1
Accommodation, service, and control spaces	All personnel walkways, catwalks, ladders, platforms or access areas	NO
Lifeboat embarkation or temporary safe refuge stations in open deck areas	All personnel walkways, catwalks, ladders, platforms or access areas	NO

Job Id: **262.1-027362-1**
Certificate No: **TAF00000VC**

Open Decks or semi-enclosed areas	Walkways or areas which may be used for escape, or access for fire fighting, emergency operation or rescue	NO
	Personnel walkways, catwalks, ladders, platforms or access areas other than those described above	YES
	Gangway for safe access to bow on tankers according to IMO MSC.62(67)	NO

Notes:

1. Only if these spaces **not** are within accommodation, service and control spaces, and normally **not** entered when underway.
2. Gratings that are electrically conductive shall be required. Acceptance criteria for resistance per unit length and to earth is: $< 0.1 \text{ M } \Omega$ to earth. Test standard ASTM D257-91, ref. DNV GL-CP-0070 "Fibre reinforced thermosetting plastic piping systems - Non-metallic materials"

The FRP grating is only evaluated in accordance with fire technical requirements. Other requirements such as strength etc., has to be evaluated in each case.

The grating shall not be installed in areas where it can be exposed to a hydrocarbon fire.

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, February 2016.

Test report no. 170926006Shf-BP-1 dated 16th October 2017, from INTERTEK

Test report no. 170926006Shf-BP-2 dated 16th October 2017, from INTERTEK

Tests carried out

Tested according to ASTM E84-07

Marking of product

The product or packing is to be marked with name of manufacturer and type designation.

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.