

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the "B" Class divisions, fire integrity

with type designation(s)
MSW50-M - Multi layer wall panel

Issued to
R & M International GmbH
Hamburg, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397**,
item No. MED/3.11b. SOLAS 74 as amended, Regulation II-2/3.4 & II-2/9, IMO 2010 FTP
Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1581

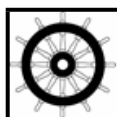
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-10-07**.

Issued at **Hamburg** on **2019-10-08**

DNV GL local station:
Hamburg

Approval Engineer:
Roland Priebe



Notified Body
No.: **0098**

for **DNV GL SE**

Gerhard Aulbert
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Product description

"MSW50-M - Multi layer wall panel" is a class B-15 bulkhead. The panels are 50 mm thick, fitted with a groove on both sides and jointed together with a tongue.

Construction:

The bulkhead panels are made of 0.6 mm galvanized steel sheets as outer shell. Then comes an additional layer of 0.5 mm galv. steel sheet glued to 16 mm of mineral wool. In the middle is an air gap of 16 mm. The opposite side is constructed identically.

The 0.6 mm galv. steel sheets are forming an approx. 20 mm deep and 42 mm wide groove along the vertical edges of the panel. A U-profile (19 mm x 46 mm x 19 mm x 1 mm, galv. steel) is holding the two sides together and is backed with mineral wool.

To stabilize the panel there are 16 mm thick and 84 mm wide mineral wool strips inside the air gap.

The panels were jointed together with a tongue (42 mm x 39 mm x 2465 mm). It consists of two U-profiles opposite to each other and with mineral wool inbetween.

Materials:

The insulation material used for the panels is Tizol-Flot 200 (200 kg/m³) from Joint Stock Company "Tizol" Nizhnyaya Tura, Russia. The insulation material used for the tongue is Tizol-Flot 150 (150 kg/m³) from same company.

The mineral wool is fixed to the steel sheets by means of approved adhesive.

For further details refer to the documentation listed below under "Type Examination documentation".

Application/Limitation

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

Maximum panel size: 2465 mm long x 800 mm wide x 50 mm thick.

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

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

Type Examination documentation

Test report No. PGA11494A dated 24 June 2019 from Danish Institute of Fire and Security Technology, Hvidovre, Denmark.

Tests carried out

Tested according to IMO Resolution MSC.307(88) – 2010 FTP Code Annex 1, Part 3.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, MED Mark of Conformity and USCG approval number.

USCG Approval Category (Module B) number

This product has been assigned a U.S. Coast Guard Module B number 164.108/EC0098 to note type approval to Module B only as it pertains to obtaining US Coast Guard approval as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th, 2004 and amended by Decision No.1/2018 dated February 18th, 2019.