

# 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 C class Divisions**

with type designation(s)  
**Steel-Aluminium foam-Sandwich (SAS)**

Issued to  
**HAVEL metal foam GmbH**  
**Brandenburg an der Havel, Germany**

is found to comply with the requirements in the following Regulations/Standards:  
Regulation **(EU) 2017/306**,  
**item No. MED/3.64. SOLAS 74 as amended, Regulation II-2/3.10 & 2/9 and IMO 2010 FTP Code**

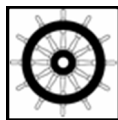
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2022-07-05**.

Issued at **Hamburg** on **2017-07-06**

DNV GL local station:  
**Magdeburg**

Approval Engineer:  
**Timo Linn**



Notified Body  
No.: **0098**

for **DNV GL SE**

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**Sven Dudszus**  
**Head of Notified Body**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Job Id: **344.1-006761-1**  
Certificate No: **MEDB00002EK**

### **Product description**

"Steel-Aluminium foam-Sandwich (SAS)"

Consists of a aluminium foamed metal alloy between 2 steel plates (thickness: 2mm).

Total thickness: 10-50 mm

### **Application/Limitation**

The product can be used in a C-class division as defined in SOLAS II-2 Reg .3.10 and is considered as being non-combustible as per the 2010 IMO FTP Code, Annex 2, Para 1.

Additional surface materials have to be approved for low flame-spread characteristics and smoke and toxicity (IMO FTP Code, Annex 1, Parts 2 and 5).

The product satisfies the requirement for maximum calorific value (ref. Solas Chapter II-2, Reg 5.3.2.2) without further testing.

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

### **Type Examination documentation**

Test Report no. 2016-1625-2 dated 28th of July 2016 issued by Exova Warringtonfire, Frankfurt

### **Tests carried out**

IMO 2010 FTP Code Annex 1, Part 1.

### **Marking of product**

The product is to be marked with name and address of the manufacturer, type designation, fire technical rating and MED Mark of Conformity (see first page).