

# EC Certificate

## Type Examination (Module B)

This is to certify that:

Germanischer Lloyd, a Notified Body under the terms of the Marine Equipment Directive 96/98/EC of 20 December 1996, notified by the German Federal Ministry of Transport, Building and Urban Development, did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 96/98/EC as amended, subject to any conditions in the schedule attached hereto.

Certificate No.	<b>60 880 - 13 HH</b>		
Applicant	<b>Elbe Flugzeugwerke GmbH</b> <b>Grenzstraße 1</b> <b>01109 Dresden, GERMANY</b>		
Manufacturer	<b>Elbe Flugzeugwerke GmbH</b> <b>Grenzstraße 1</b> <b>01109 Dresden, GERMANY</b>		
Product Description	<b>Class B-15 Ceiling</b>		
Product Name	<b>Class B-15 Ceiling type EFW 2012/2</b>		
Trade Name	<b>Class B-15 Ceiling type EFW 2012/2</b>		
Specified Standards	<b>IMO Res. MSC.307 (88), Annex 1, Part 3</b> <b>IMO MSC/Circ.1120</b>		
Related Directive	<b>2012/32/EU</b>		
Equipment Section	<b>Fire protection</b>		
Annex A.1 Item No.	<b>A.1/3.11b</b>		
USCG-Module-B No.	<b>164.110 / EC 0098</b>	Unique Identifier	<b>6088013</b>
Date of Issue	<b>2014-05-23</b>		
Expiry Date	<b>2019-05-22</b>		

**Germanischer Lloyd**

**Notified Body No.: 0098**



*Sven Dudzus*  
**Sven Dudzus**

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## Schedule of Approval

### Approval Documentation

Test Report No. 2012-B-5561 dated 13.02.2013 issued by MPA Dresden  
(GL Ref.No.13-040312)

### Technical Data

Class B-15 ceiling of 27mm total thickness consisting of expanded glass panels connected to each other by means of aluminium H-beam push-fit profiles; mounted below a steel structural deck. The expanded glass panels are sandwiched between 0.5mm thick aluminium sheets affixed with an adhesive of approved type. Trapezoidal aluminium profiles (40mm x 25mm x 2mm) running longitudinally over the full length of the panels at 484mm intervals are pop-riveted on the top of the panels.

Panel dimensions:

Maximum panel size: 1170 x 2420 mm (width x length).

The construction of the EFW 2012/2 Type Class B-15 Ceiling shall be in accordance with the manufacturer's drawings Nos.: 31100-000, 31100-002, 31100-200, 31100-216, 31100-210, 31100-208 and 31100-206.

If the ceiling EFW2012/2 is mounted below a class A-0 deck, this construction may be regarded as class A-15 or A-30 respectively. The air gap between steel deck and ceiling for the tested specimen was 300mm.

Insulation:

Expanded glass [density: 270 kg/m<sup>3</sup>].

Surface materials:

Combustible surface materials shall have low flame-spread characteristics and shall not be capable of producing excessive quantities of smoke and toxic products.

Installation:

Installation on board according to manufacturer's instruction.

Marking:

The product or packing is to be marked with product and manufacturer's name, fire rating and the EC mark of conformity.

Where the panels are penetrated for the passage of electric cables, pipes, ducts, etc. or for the fitting of the ventilation terminals, lighting fixtures and similar devices, arrangements shall be made to ensure that the fire resistance is not impaired.

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**Remarks**

None

**Limitations on the acceptance or use of the product**

See "Technical data"

**Comment to USCG Approval**

Class B-15 Ceiling

**Notes:**

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform Germanischer Lloyd, as the Notified Body, of any modifications or changes to the approved equipment.

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.

This product has been assigned a U.S. Coast Guard Module B number 164.110 / EC 0098 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 27<sup>th</sup> 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.