

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Fire resisting divisions for high speed craft

with type designation(s)

"Rapid Access Composite" 60 Minute Bulkhead

Issued to

CBG Systems International Pty Ltd
DERWENT PARK TASMANIA, Australia

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2017/306,**

item No. MED/3.34. SOLAS 74, Regulation X/3, 2000 HSC Code 7, IMO MSC.1/Circ.1457 and IMO 2010 FTP Code

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

This Certificate is valid until **2022-06-11**.

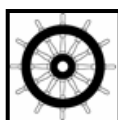
Issued at **Høvik** on **2017-06-12**

DNV GL local station:

Hobart

Approval Engineer:

Tomasz Werchowicz



Notified Body
No.: **0575**

for **DNV GL AS**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"Rapid Access Composite (RAC)" 60 Minute Bulkhead

light weight composite fire resisting division is a structural fire protection system consisting of composite panels and light gauge steel supporting structure, mounted so that a minimum 150 mm air gap is maintained between the back (non-fire side) of the panels and the aluminium bulkhead shell plate.

Aluminium bulkhead

Aluminium bulkhead shall consist of 6 mm shell plate with stiffeners of 100 mm x 75 mm x 9 mm every 600 mm. Equivalent stiffness will be accepted.

Composite panels

The Rapid Access Composite Panels consist of a 10 mm aluminium honeycomb panel and a layer of 9.5 mm CBG-RAC-I-Insulation towards the fire side, compressed to a nominal 6.5 mm. The panels have nominal maximum dimensions of 2400 mm x 1200 mm and are typically 16.5 mm thick. An optional aluminium sheet (40 microns) may be applied to the reverse (non fire) side of the sheet.

The CBG-RAC-I-Insulation may be composed of Evanite 702 or Lauscha B-00-F or Lauscha B-02-F.

The panels may be covered with a facing on the exposed side. This lining (in combination with the panel substrate and infrastructure) shall comply with the requirements of IMO 2010 FTP code part 10 (Fire restricting material).

Framework structure installation

The supporting frame work structure and composite panels are installed to the aluminium bulkheads using steel brackets.

An air gap of minimum 150 mm is to be maintained between the back (non fire side) of the panels and the aluminium shell plating. The steel brackets are to be installed at 1200 mm nominal maximum centers in the longitudinal and transverse directions.

Inspection hatch

The bulkhead can be fitted with an inspection hatch with maximum clear opening of 900 x 900 mm (W x H), with hinge fitted on the exposed side. The hatch to be installed in the middle of the RAC panel horizontally, at least 450mm away from the horizontal panel joint. The hatch leaf, having dimensions of 940 x 940 mm (W x H) is composed of two stainless steel sheets of 0.9mm thick each and insulation material (2 layers of 25mm each of "Superwool 607 Plus Blanket" with density of 128 kg/m³ and incorporating 0.6mm thick aluminium sheet in between which is held in place by Z shaped steel brackets) inbetween. The hatch frame is composed of a C shaped stainless steel profile having dimensions of 1000x1000x70mm (WxHxD) and thickness of 0.9mm, and is fixed to panel support structure by means of stand off brackets. The frame incorporates sealing gasket type "Intumex L-Fire protection Laminate". Hatch leaf is fitted with three point locking mechanism activated by a single handle.

For further details see documentation under Type Examination documentation below.

Application/Limitation

Approved for use as a vertical, load-bearing, fire-resisting division in light crafts, meeting for a period of 60 minutes the requirements to stability, integrity and insulation for class A divisions.

Fire hazard shall be on the insulated side (restricted application).

Only the combined product (supporting infrastructure, composite panels, air gap and aluminium structure) is approved as a fire resisting division. Maker is to ensure that the product is manufactured and installed as tested (see Type Examination documentation), the main issues are listed below.

The insulation material, and any surface materials and adhesive used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

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

Type Examination documentation

Job Id: **344.1-000863-31**
Certificate No: **MEDB00002UC**

Fire test Report No. P804781, dated November 2008, from SP, Sweden.
Room corner test report no. 31724800-5 dated 11th December 2014 from Exova Warrington Fire, Australia.
Report "RAC Felt Raw Materials" dated 28th April 2014 from Morgan Advanced Materials, UK.
Technical Statement WF No. 341913 dated 20th June 2014 from Exova Warringtonfire, UK.
Technical Statement, Assessment no. FCO-2827 dated 7th June 2016 from CSIRO, Australia
Fire Test Report No. 2016CS011799/5 dated 14th July 2016 from Rina, Italy.
Fire Test Report No. 2016CS011799/7 dated 6th October 2016 from Rina, Italy.

Design Specifications DS 02 from CBG Systems Pty. Ltd. Revisions of Design Specifications are to be approved by DNV GL.

Title	Drwg. No.	Rev. No.	Date	App No.
Cover plate	001-10	2	28 th October 2008	4
Locking disc & spacer	001-08	3	28 th October 2008	5
Corner Bracket	001-07	C	28 th October 2008	6
Channel intersection join detail	001-07	A	31 st October 2008	7
Support Channel	001-09	2	28 th October 2008	8
Cover strip	001-11	B	6 th July 2004	9
Stand off bracket	-	-	3 rd December 2008	-

Tests carried out

Tested according to IMO 2010 FTP Code part 3 and part 10 and according to IMO FTP Code Part 11 and in compliance with IMO 2010 FTP Code Ch. 8.

Marking of product

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