EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB0000166
Revision No:
4

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 AS under the authority of the Government of Norway.

This is to certify:

That the Fire restricting materials (except furniture) for high speed craft

with type designation(s)
"Rapid Access Composite" 60 Minute Bulkhead / Deckhead

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) 2020/1170,**
item No. MED/3.32. SOLAS 74 as amended, 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 **2026-05-16**.

Issued at **Høvik** on **2021-05-17**

DNV local station:
Australia NB

Approval Engineer:
Tessa Biever

Notified Body
No.: **0575**

for **DNV AS**
Digitally Signed By: Øyvind Hoff
Location: DNV Høvik, Norway
on behalf of

Sverre Olav Bergli
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 United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2019 dated February 22nd, 2019.

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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 / Deckhead
light weight composite fire resisting division is a structural fire protection system consisting of composite panels and light gauge steel supporting structure. When installed with a minimum air gap between the aluminium deckhead / bulkhead plate and the back (non-fire side) of the panels, it is approved for general use as fire restricting material.

Aluminium deck / bulkheads
Aluminium bulkhead shall consist of 6 mm shell plate with stiffeners of 100 mm x 75 mm x 9 mm every 600 mm, whereas the deckhead shall consist of 6 mm shell plate with stiffeners of 150 mm x 100 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 dimension 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 insulation) shall comply with the requirements of IMO 2010 FTP code part 10 (Fire restricting material).

Framework structure installation bulkhead
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 centres in the longitudinal and transverse directions.

Supporting infrastructure and installation deckhead
The supporting infrastructure and composite panels are suspended below an aluminium deckhead using eye bolt, hanging rod and clips.

An air gap of 300 mm is to be maintained between the aluminium shell plating and the non-fire side of the panels. Suspension rods are to be installed at 1200 mm nominal maximum centres in the longitudinal and transverse directions.

Joints and insulation
Joints between panels are to be covered with steel strips, which are insulated with CBG-RAC-I-Insulation and attached to the framework with screws at nominal 600 mm centres.

Each corner of the panels is supported by a 0.55 mm steel corner bracket and steel locking discs. Locking discs are covered with a 0.55 mm steel cover plate attached with a centre screw and insulated with CBG-RAC-I-Insulation.

For further details see documentation under Type Examination documentation below.

Application/Limitation

Approved for use as a fire-restricting material in High Speed Craft.

Restricted application: Fire hazard shall be on the insulated side.

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

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

Type Examination documentation

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

Design Specifications DS 01 and DS 02 from CBG Systems Pty. Ltd. Revisions of Design Specifications are to be approved by DNV.

Title	Drw. No.	Rev. No.	Date

Cover plate	001-10	2	28th October 2008
Locking disc & spacer	001-08	3	28th October 2008
Corner Bracket	001-07	C	28th October 2008
Channel intersection join detail	001-07	A	31st October 2008
Support Channel	001-09	2	28th October 2008
Cover strip	001-11	B	6th July 2004
Caddy clip hanging detail (deckhead only)	-	-	15th November 2008
Stand off bracket (bulkhead only)	-	-	3rd December 2008

Tests carried out

Tested according to IMO 2010 FTP Code part 10.

Marking of product

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