

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Fire-Resisting Division for High Speed Craft

with type designation(s)
A60 HSC Aluminium Deck

Issued to
Unifrax Ltd.
ST. HELENS, United Kingdom

is found to comply with
DNV GL rules for classification – High speed and light craft
IMO International Code of Safety for High-Speed Craft (HSC CODE)

Application :

Product approved by this certificate is accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2022-01-08**.

Issued at **Høvik** on **2017-01-09**

DNV GL local station: **Paris CMC / VMC**

Approval Engineer: **Tomasz Werchowicz**

for **DNV GL**

Petter Langnes
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Product description

"A60 HSC Aluminium Deck"

is composed of 2 mm thick aluminium plates stiffened from the exposed side with channel profiles in longitudinal and T-profiles in transverse direction. Aluminium channel profiles have dimensions 32 x 32 x 3 mm (H x B x T) and are installed 125 mm one from another. Aluminium T-profiles have dimensions 160 x 100 x 6 x 10 mm (H x B x Tw x Tf). Maximum distance between T-profiles is 1200 mm. Channel profiles are covered with 50 mm thick FyreWrap LTFR Blanket (with aluminium foil from deck side) with nominal density of 70 kg/m³. Insulation butt joints have additional backing insulation put between channel profiles. Additional 350 mm wide and 35 mm thick strip of ceramic wool (the same type as above, but without aluminium foil) covers T-profiles. Additionally T-profiles are insulated on their full length from one side of the web, with 50 mm thick ceramic wool strip of the same type as above.

The insulation is fixed to the bulkhead by means of Ø3 x 120 mm and Ø3 x 70 mm steel pins affixed to the channel stiffeners. Nominal spacing between pins is 215 mm (along channel profiles) x 250 mm (in direction of T-profiles). In regions of insulation butt joints pins are located maximum 50 mm from the edge of the blanket.

For further details see approved drawings listed under Type Approval documentation below.

The product can be manufactured at the premises of Unifrax France, 17 Rue Antoine Durafour, 42420 Lorette, France

Application/Limitation

Approved for use as a "non-load bearing fire resisting deck 60" in light crafts.

Restricted application: Fire hazard from the insulated side only

Any surface materials used have to be approved for smoke and toxicity and low flame spread characteristics (IMO 2010 FTP Code Annex 1 Parts 2 and 5) when required according to relevant rules.

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

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2015.

Test Report No. 325729 Issue 2 dated 9th May 2013 from Exova Warringtonfire, Holmsfield Road, Warrington, UK.

Tests carried out

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

Marking of product

The product or packing is to be marked with name of manufacturer, type designation and fire-technical rating.

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)", DNV GL confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

Periodical assessment

DNV GL's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNVGL-CP-0338, Section 4.