DNV·GL

Certificate No:
TAK00000C7

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Glass Fibre Products

with type designation(s)
Bi-axial; +45º/-45º (100-2600 g/m²) and 0º/90º (100-2600 g/m²) with or without CSM (50-600 g/m²)

Issued to
AHLSTROM GLASSFIBRE OY, MIKKELI PLANT
MIKKELI, Finland

is found to comply with
DNV GL rules for classification – High speed and light craft
DNV GL class programme DNVGL-CP-0467 – Type approval – Uni- and multi-axial multi-ply fabrics made of glass fibres
Det Norske Veritas Standards' for Certification No. 2.21, Craft, 2010
Det Norske Veritas' Standards for Certification No. 2.20, Lifeboats and Rescue Boats, 2007

Application :

For use in marine vessels according to stated Rules/Standards.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2021-06-21**.

Issued at **Høvik** on **2016-06-22**

for **DNV GL**

DNV GL local station: **Helsinki**

Approval Engineer: **Gisle Hersvik**

Arnstein Gloppen
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.

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Job Id: **262.1-006899-3**
Certificate No: **TAK00000C7**

Product description

Bi-axial Glass Fibre products, of 0º/90º, and Double-Bias products, of ±45º orientations:

- 0º/90º (100-2600 g/m²) with or without CSM (50-600 g/m²)
- +45º/-45º (100-2600 g/m²) with or without CSM (50-600 g/m²)

Legends:
Bi-axial: +45°/-45° or 0°/90°
CSM: Chopped Strand Mat

Application/Limitation

The approval covers the weight ranges listed above.

Type Approval documentation

1.
2.
3.
4.

Tests carried out

Type Testing carried out according to T**ype Approval documentation**.

Marking of product

Product shall be marked with manufacturer's name: **Ahlstrom Glassfibre Oy, Mikkeli Plant, Finland** and *type designation.*

The marking is to be carried out in such a way that it is visible, legible and indelible. The marking of product is to enable traceability to the DNV GL Type Approval Certificate.

Periodical assessment

The scope of the Periodical Assessment is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

Periodical Assessment to be performed after 2 years (Certificate Retention) and at renewal after 5 years (Certificate Renewal).

The main elements of the Periodical Assessment are to:
- Ensure that **Type Approval documentation** is available.
- Review design, materials, production process, and performance with respect to possible changes, in order to ensure compliance with **Type Approval documentation** and/or referenced material specifications.
- Ensure traceability between manufacturer's product marking and the DNV GL Type Approval Certificate.

END OF CERTIFICATE