DNV·GL

Certificate No:
TAK00000XK

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Glass Fibre Products

with type designation(s)
Bi-axial Fabric (400 - 1200 g/m²) with or without CSM

Issued to
FRP SERVICES & COMPANY
OSAKA, Japan

is found to comply with
DNV GL class programme DNVGL-CP-0467 – Type approval – Uni- and multi-axial multi-ply fabrics made of glass fibres

Application :

Only for use in marine vessels according to stated Rules/Standards.

Issued at **Hamburg** on **2017-08-04**
This Certificate is valid until **2022-08-03**.
DNV GL local station: **Kobe**

Approval Engineer: **Guido Michalek**

for **DNV GL**

Thorsten Lohmann
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: **262.1-005526-4**
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Product description

Biaxial Fabric DB (±45°) or WF (0°/90°) made of E-Glass with or without Chopped Strand Mat (CSM)

Approved variants

DB (±45°): 400 – 1200 g/m² with or without CSM 100 – 600 g/m²
WF (0°/90°): 400 – 1200 g/m² with or without CSM 100 – 600 g/m²

For use with laminating resin made of polyester and vinylester

Limitation

The fabric complies with the applicable requirements of DNV GL and is compatible to the laminating resin. Any significant changes in design and / or quality of the material will render the approval invalid.

Type Approval documentation

- Technical Data Sheet
- Type Approval Documentation issued by FRP Services & Company, dated on 2008-11-04.
- Test Report issued by FRP Services & Company based on values determined in the presence of a DNV GL surveyor, dated on 2017-11-17.
- Audit report issued by DNV GL Kobe, dated on 2017-04-24.

Assessed production site:

Shindo Senikogyo Co., Ltd.,
11-1-1 Ii
Awara-shi, 919-0614
Japan

Periodical assessment

A production site with a valid Approval of Manufacturer (AoM) certificate for material in question is exempted from the obligation concerning retention and renewal assessments.
For manufacturer without a valid AoM a periodical assessment after 2.5 years and at renewal after 5 years is required.

Remarks

This certificate supersedes the Type Approval K-5708.

END OF CERTIFICATE