

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Carbon Fibre Products**

with type designation(s)

CBX and CBXS; Biaxial Carbon Fibre Fabrics ($\pm 45^\circ$) or ($0^\circ/90^\circ$) (70-1500 g/m²)

Issued to

Selcom S.r.l.
FREGONA TV, Italy

is found to comply with

DNV GL class programme DNVGL-CP-0434 – Type approval – Uni- and multi-axial multi-ply fabrics made of carbon fibres

Application :

Manufactring of FRP laminates.

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

This Certificate is valid until **2022-02-04**.

Issued at **Høvik** on **2017-02-05**

DNV GL local station: **Venice**

for **DNV GL**

Approval Engineer: **Gisle Hersvik**

Martin Strande
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

CBX and CBXS; Biaxial carbon fibre fabrics;
- Soficar – Toray Industries; Toray T700SC 50C 12K
- Toho Tenax Europe GmbH; Tenax UTS50 F24 24K
Layer structure: CBX ($\pm 45^\circ$) or CBXS ($0^\circ/90^\circ$)
Mass per unit area: 70-1500 g/m²

Application/Limitations

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

Marking of product

Product/package shall be marked with *manufacturer's name, type designation, dimensions, batch no. and storage instructions*.

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.

A production site with a valid Approval of Manufacturer (AoM) certificate for the material in question is exempted from the obligation concerning periodical (retention and renewal) assessments.

Periodical Assessment to be performed after 2 and 3.5 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 DNV GL Type Approval Certificate.

END OF CERTIFICATE