

TYPE APPROVAL CERTIFICATE

Certificate No:
TAK00000NW
Revision No:
2

This is to certify:

That the Carbon Fibre Products

with type designation(s)
CTXL and CTXT; Triaxial Carbon Fibre Fabrics (0°/±45°) or (90°/±45°) (105-1200 g/m²)

Issued to
SELCOM S.R.L.
Fregona, TV, Italy

is found to comply with
DNV class programme DNV-CP-0434 – Type approval – Uni- and multi-axial multi-ply fabrics made of carbon fibres

Application :

Manufacturing of FRP laminates.

Issued at **Hamburg** on **2022-06-29**

for **DNV**

This Certificate is valid until **2027-06-28**.

DNV local station: **Venice**

Approval Engineer: **Joachim Rehbein**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

CTXL and CTXT; Triaxial carbon fibre fabrics

Fibre material: PAN Carbon Fibre

Layer structure: CTXL ($0^\circ/\pm 45^\circ$) or CTXT ($90^\circ/\pm 45^\circ$)

Mass per unit area: 105-1200 g/m²

Assessed production site

SELCOM SRL, Via della Torre n. 17, 31010 Fregona (TV), Italy

Application/Limitations

Manufacture of FRP components for applications including marine vessels and rotor blades within wind energy (ref. DNV-ST-0376).

The fabric complies with the applicable requirements of DNV 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

1. Assessment Report from DNV GL Venice of 2016-12-15.
2. TDS; CTXL1200 (24K).
3. TDS; CTXT600 (24K).
4. Fabric Quality Controls.
5. Linset & Co. S.r.l. Test Report (ASTM D3039, ASTM D695, ASTM D790) of 2016-11-03.
6. Linset & Co. S.r.l. Test Report No. 462-16 of 2016-11-07.

Renewal 2022:

1. Application form TAA901 of 2022-02-16;
2. Type approval assessment report TA 401 issued 2022-03-24;
3. TDS for CTXL750-SBIL-24k 50C (Torayca T700SC 50C 24K, Soficar-Toray Industries-Japan);
4. Test report 2462-22 with annex issued by LINSET & Co. SRL, Fano, Italy, of 2022-05-13.

Marking of product

Product/package shall be marked with *manufacturer's name*; **SELCOM S.R.L.**, *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 Type Approval Certificate.

Periodical assessment

Periodical assessments are required after two years and after 3.5 years (retention surveys) and for renewal after 5 years (renewal survey). Refer to DNV-CP-0338, Sec.4.

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.

This certificate is only valid if required assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>

END OF CERTIFICATE