

TYPE APPROVAL CERTIFICATE

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

with type designation(s)

C-PLY™: Bi-axial BT (0°/90°) (150 – 1200 g/m²) and Bi-axial BX (±45°) (150 – 1200 g/m²)

Issued to

**CHOMARAT Textiles Industries
LE CHEYLARD, France**

is found to comply with

**Det Norske Veritas' Type Approval Programme 1-501.19, 2009, Carbon Fibre Reinforcements
Det Norske Veritas' Rules for Classification of High Speed, Light Craft and Naval Surface Craft
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 and Manufacturer's recommendations. Area of application will be evaluated during approval of classified objects.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**This Certificate is valid until **2019-09-13**.Issued at **Høvik** on **2015-12-03**DNV GL local station: **Marseille**Approval Engineer: **Gisle Hersvik**for **DNV GL****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.

Job Id: **262.1-018699-1**
Certificate No: **TAK0000032**
Revision No: **1**

Product description

C-PLY™: Bi-axial BT (0°/90°) (150 - 1200g/m²) and Bi-axial BX (±45°) (150 - 1200g/m²);
Carbon Fibre Bi-axials

Application/Limitation

The Type Approval is valid for the above-mentioned nominal weight range.

Area of application will be evaluated during approval of classified objects.

Type Approval documentation

1. Assessment Report from DNV GL Marseille of 2015-06-05 (audit date 2015-03-31).
2. Application for Type Approval of 2015-03-31.
3. Material Declaration – Asbestos of 2015-04-10.
4. Chomarat's Test Reports for BT600 [0°/90°, T700SC 12K FOE], BX600 [±45°, T700SC 12K HS FOE].
5. Product Information: C-PLY™BT600 CT3,4 12K FOE (605 g/m²).
6. Product Information: C-PLY™BX600 CT2,3 12K HS FOE (600 g/m²).

Tests carried out

Type Testing carried out in accordance with **Type Approval documentation**.

Marking of product

Product/package shall be marked with *manufacturer's name*; **CHOMARAT Textiles Industries, France** 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 two (2) years (Certificate Retention) and at renewal after four (4) 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