

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Glass Fibre Products

with type designation(s)

**Triaxial Knitted Fabrics; GTX (300-2400 g/m²) of 0°/+45°/-45° orientation with or without M (100-600 g/m²),
Triaxial Knitted Fabrics; GTX (300-2400 g/m²) of +45°/90°/-45° orientation with or without M (100-600 g/m²)**

Issued to

Dipex spol. s.r.o.
Sered, Slovakia (Slovak Republic)

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
DNV GL rules for classification – High speed and light craft
DNV GL standard DNVGL-ST-0342 – Craft
Det Norske Veritas' Standards for Certification No. 2.20, Lifeboats and Rescue Boats, 2007

Application :

Manufacturing of FRP laminates.

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

Issued at **Høvik** on **2021-05-14**

for **DNV**

This Certificate is valid until **2026-05-13**.

DNV local station: **Prague CMC**

Approval Engineer: **Gisle Hersvik**

Gustav Heiberg
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

**Triaxial Knitted Fabrics; GTOX (300-2400 g/m²) of 0°/+45°/-45° orientation with or without M (100-600 g/m²),
Triaxial Knitted Fabrics; GTX (300-2400 g/m²) of +45°/90°/-45° orientation with or without M (100-600 g/m²)**

Tri-axial Glass Fibre Products of 0°/+45°/-45° and of +45°/90°/-45° orientations.

Legends:

GTOX: Glass Fibre Tri-axial 0°/+45°/-45°

GTX: Glass Fibre Tri-axial +45°/90°/-45°

M: Chopped Strand Mat

Applications/Limitations

The approval covers the weight ranges given above.

Manufacture of FRP components for applications including marine vessels - and rotor blades within wind energy (ref. DNVGL-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 Prague of 2020-09-23.
2. MA_DOCUMENTATION REQUIREMENTS_v05 of February 2021
3. TA_CP 0467_Glass_non woven_v05 (Type Approval according to DNVGL-CP-0467)
4. ISO 9001:2016, ISO 14001:2016 and ISO 45001:2019
5. B207.20 IMA Test Report "Certification Tests of GFRP" of 2021-02-19.
6. TDS EXP EU Resin Promoted B (Aropol K 530 INF)
7. TDS Luperox K1S
8. SDS EXP EU RESIN PROMOTED B_611678 (GHS) – English
9. Application for Type Approval of 2020-06-26.

Tests carried out

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

Marking of product

Product shall be marked with *manufacturer's name*: **Dipex spol. s.r.o., Slovakia** and *Type Designation (Product Name), Barcode, Batch number, Product ID, Width and Weight*.

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

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 assessments (for Certificate Retention and Certificate Renewal) shall be performed according to DNVGL-CP-0338.

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

END OF CERTIFICATE