



TYPE APPROVAL

Certificate No.:
TA-DNV-CP-0434-10733-0

Issued:
2024-04-26

Valid until:
2028-07-03

Issued for:

Biaxial fabric made from carbon fibres

with type designation(s)

X-C-Series, B-C-Series

As specified in Annex 1

Issued to:

SAERTEX GmbH & Co. KG

Brochterbecker Damm 52, 48369 Saerbeck, Germany

According to:

DNV-SE-0436:2022-09 Shop approval in renewable energy

and

DNV-CP-0434:2021-09 Type approval – Uni- and multi-axial multi-ply fabrics made of carbon fibres

Applying:

DNV-SE-0441:2021-10 Type and component certification of wind turbines

Based on the documents listed in Annex 1.

This Type Approval supersedes the Type Approval TAK00000N7 Rev. 1

Any significant changes in the design and/or quality of the material will render this Type Approval invalid.

Hellerup, 2024-04-26
For DNV Renewables Certification

Hamburg, 2024-04-26
For DNV Renewables Certification



Bente Vestergaard
Service Line Leader

By DAKKS according to DIN EN IEC/ISO 17065 accredited Certification Body for products. The accreditation is valid for the fields of certification listed in the certificate.

Bernhard Krüger
Project Manager

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Product description and application

Biaxial fabrics made of PAN carbon fibres for application in FRP components of wind turbine generators (rotor blades, nacelle covers, spinners) and other applications.

Approved variants

X-C-XXg/m²-YYmm

B-C-XXg/m²-YYmm

With:

X: Ply construction $\pm 45^\circ$

B: Ply construction $0^\circ/90^\circ$

C: Carbon

XX: Total areal weight in g/m²

YY: Width of the fabric in mm

With the following ranges:

Total areal weight range

80 – 1500 g/m²

Width

30 – 3810 mm

The fabrics consist of roving in the range of 12K to 60K.

Type Approval documentation

Technical data sheet(s)	30003595, Technical Datasheet for X-C-153g/m ² -1400mm 30004569, Technical Datasheet for B-C-1013g/m ² -630mm 30009905, Technical Datasheet for X-C-304g/m ² -400mm 30012714, Technical Datasheet for X-C-300g/m ² -2540mm NN, Technical Datasheet for A32EX010-00410-01270-264000
Safety data sheet(s)	Safety data sheet according to Regulation (EC) No 1907/2006, Annex II for Carbon Fabric, revision 2, dated 2022-11-09
Test report(s)	LA-23-3504, Test report X-C-153g/m ² -1400mm Tensile and Bending, dated 2024-01-24 LA-23-3513, Test report X-C-153g/m ² -1400mm Compression, dated 2024-02-13 LA-23-3505, Test report B-C-1013g/m ² -630mm Tensile and Bending, dated 2024-02-12 LA-23-3514, Test report B-C-1013g/m ² -630mm Compression, dated 2024-02-13
Inspection documentation	WIR-10728/29/30/31/32/33/34/35-001-0, workshop inspection report for Saerbeck Germany, DNV, dated 2024-01-10
Quality control documentation	ISO 9001:2015 certificate no. 80116044/3, DEKRA Certification GmbH, dated 2023-11-16 ISO 9001:2015 certificate no. LT005629 for Saertex Baltics UAB, Bureau Veritas, dated 2021-08-20 Inspection certificates for batch no's. 1292457, 1311671 and 8612-8799

Approved production sites

Saertex Germany Gmbh & Co. KG
Brochterbecker Damm 62
48369 Saerbeck
Germany

Saertex Baltics UAB
Pramonės g. 20 D
81123 Kuršėnai
Lithuania



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Saertex USA, LLC.
12200 Mt. Holly-Huntersville Rd.
Suite A
Huntersville, NC 28078
USA

Certificate maintenance

In the case of major changes of the approved production processes and methods during the validity time of the Type Approval, the changes shall be reported to DNV. A periodical assessment needs to be carried out 2.5 years after the issue date of the Type Approval. An intermediate inspection of the production workshop(s) might be needed based on the implemented changes. The workshops Saertex Germany had been inspected in connection with the re-certification. All remaining workshops need to be inspected during the validity period of the Type Approval to maintain the certificate's validity. Evidence for the inspections will be provided through separate workshop inspection reports.