

TYPE APPROVAL

Certificate No.:
TA-DNVGL-CP-0096-06749-0

Issued:
2021-07-15

Valid until:
2026-07-14

Issued for:

Carbon fibre tow

with type designation(s)

Zoltek™ PX35-7 VE

Issued to:

Zoltek Corporation

3101 McKelvey Road, Bridgeton, MO 63044, USA

According to:

DNVGL-SE-0436:2018-04 Shop approval in renewable energy

and

DNVGL-CP-0096:2016-03 Type approval – Carbon fibre tows

Applying:

DNVGL-SE-0441:2016-06 Type and component certification of wind turbines

Based on the documents listed in Annex 1.

This Type Approval consists of this page and Annex 1 which is integral part of the approval.

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

Hellerup, 2021-07-15

Hamburg, 2021-07-15

For DNV GL Renewables Certification
Bente Vestergaard
Service Line Leader

For DNV GL Renewables Certification
Peter Schmidt
Principal Project Manager

TYPE APPROVAL – ANNEX 1

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Product description and application

The Zoltek PX35-7 VE is a high tenacity carbon fibre tow with sizing for vinyl ester resins. The PX35-7 VE is a heavy tow whose fibres are manufactured from polyacrylonitrile (PAN) precursor. The fibre diameter is 7.2µm and this 50K roving has 3745 tex. This product is typically used in the field of wind energy, marine applications, and industry.

Approved variants

PX35-7 VE high tenacity carbon fibre tow with sizing for vinyl ester resins

Type Approval documentation

Technical data sheet(s): Technical Datasheet ZOLTEK™ PX35 Vinyl ester compatible tow

Safety data sheet(s): Safety Data Sheet ZOLTEK™ PX Carbon Fibre, CF-01, dated 2017-04-27

Test report(s): Test report "CFRP Fabric PXFB – Testing" "PXFB Fabric Test", B005/20, issued by IMA Dresden, dated 2020-06-10

Carbon fibre sample preparation and tensile test, issued by Zoltek test laboratory, dated 2020-09-16

Inspection report(s): Workshop Inspection Report, WIR-6750-6749-001 rev.1, issued by DNV GL RC, dated 2020-10-20

Workshop Inspection Report, WIR-6750-6749-002 rev.0, issued by DNV GL RC, dated 2020-11-27

Quality control documentation: Certificate of Approval ISO9001:2015, AS 9100-63920, issued by Lloyd's Register, valid until 2022-10-18

Several certificates of analysis

Approved Production Sites

Zoltek Zrt.
Varga József tér 1
2537 Nyergesújfalu
Hungary

Zoltek de Mexico SA de CV
Carretera el Salto a la Capilla KM .3 S/N,
El Salto Jalisco
45680 Mexico

Last workshop inspection: 2020-10-20

Last workshop inspection: 2020-11-27

Periodical assessment

2.5 years after the last workshop inspection, the client shall inform DNV GL about any modifications in production. An intermediate inspection might be needed based on the implemented changes.

For renewal, an inspection 5 years after the last workshop inspection shall be carried out.