Certificate no.:
**TAK00002FX**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**that the Synthetic Fibre Ropes**

with type designation(s)
**8- and 12-strand UHMPE Fibre Ropes**

issued to
## Yangzhou Yangfan Cable Co., Ltd.
**Yangzhou, Jiangsu Province**, **China**

is found to comply with
**DNV class programme DNV-CP-0100 – Type approval – Synthetic fibre ropes for towing, mooring and anchoring**
**ISO 10325:2018 "Fibre ropes – High modulus polyethylene – 8-strand braided ropes, 12-strand braided ropes and covered ropes"**

## Application:

**Mooring and Towing of Ships**

Issued at **Hamburg** on **2025-02-27**
This Certificate is valid until **2030-02-26**.
DNV local unit: **Nanjing NB & CMC**

for **DNV**

Approval Engineer: **Joachim Rehbein**

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 USD 300 000.

## Product description

**Ultra High Modulus Polyethylene (UHMPE) Ropes**: 8- and 12-strand synthetic fibre ropes.

- Specific gravity: 0,97 (floats in seawater)

| ROPE CHARACTERISTICS<br>8- and 12-strand ropes | | |
|---|---|---|
| Diameter<br>[mm] | Nominal linear mass<br>[ktex] | Minimum Breaking Load<br>[kN] |
| 6 | 24 | 32 |
| 8 | 40 | 45 |
| 10 | 64 | 72 |
| 12 | 91 | 100 |
| 14 | 118 | 150 |
| 16 | 155 | 189 |
| 18 | 195 | 229 |
| 20 | 241 | 273 |
| 22 | 291 | 322 |
| 24 | 341 | 371 |
| 28 | 455 | 562 |
| 30 | 523 | 671 |
| 32 | 591 | 710 |
| 36 | 736 | 789 |
| 40 | 909 | 964 |
| 44 | 977 | 1158 |
| 48 | 1182 | 1364 |
| 56 | 1591 | 1805 |
| 60 | 1818 | 1952 |
| 64 | 2091 | 2178 |
| 72 | 2682 | 2688 |
| 80 | 3273 | 3266 |
| 88 | 4273 | 3825 |
| 96 | 5091 | 4463 |

The data in the table is provided by Yangzhou Yangfan Cable Co., Ltd.
Fibre ropes are to be delivered with a linear mass within ± 5 % of the nominal linear mass given in the table.

**Assessed production site:**
Yangzhou Yangfan Cable Co., Ltd.
Factory Building No.2, No. 5 Jialu, Xiannv Town, Jiangdu District,
Yangzhou City,
China

## Application/Limitation

The Type Approval covers ropes with diameter from 6 mm to and including 96 mm.

Scope of assessment is limited to evaluation of net mass per metre, type of lay and static strength.

## Type Approval documentation

## Tests carried out

Type Testing carried out in accordance with **Type Approval documentation**, and according to:

- ISO 2307:2019

Initial setting/cycling of ropes has not been carried out prior to break testing.

## Marking of product

Product shall be marked with *manufacturer's name, production plant* and *type designation* and *diameter*.

Additionally, the rope shall be marked using one orange yarn along in one of the visible strands.

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 / Certificate Renewal) shall be performed according to DNV-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.dnv.com.

END OF CERTIFIATE