

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Synthetic Fibre Ropes**

with type designation(s)
**Polypropylene 12-strand and
Polypropylene Multi-strand Fibre Ropes**

Issued to

**Yancheng Shenli Rope-Making Co., Ltd.
Yancheng, China**

is found to comply with
**DNV GL class programme DNVGL-CP-0100 – Type approval – Synthetic fibre ropes for towing,
mooring and anchoring
ISO 1346:2012 "Fibre ropes – Polypropylene split film, monofilament and multifilament (PP2)
and polypropylene high-tenacity multifilament (PP3) – 3-, 4-, 8- and 12-strand ropes"**

Application :**Mooring and towing of ships, boats and high speed light craft.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed
by DNV GL.**Issued at **Høvik** on **2019-06-26**This Certificate is valid until **2024-06-25**.DNV GL local station: **Shanghai**for **DNV GL**Approval Engineer: **Gisle Hersvik**

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**Rikard Törnqvist
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.



Product description

Polypropylene Ropes; 12-strand and Multi-strand braided synthetic fibre ropes.

- Fibre material: Polypropylene
- Specific gravity: 0.91 (floats in seawater)
- Elongation at break: 13 %

ROPE CHARACTERISTICS 12-strand/Multi-strand Polypropylene Ropes		
Diameter, [mm]	Nominal linear mass, [g/m]	Minimum Breaking Force (MBF), [kN]
28	354	105
30	407	119
32	363	134
36	586	167
40	723	204
44	875	243
48	1 040	286
52	1 220	332
56	1 420	381
60	1 630	433
64	1 850	488
72	2 340	608
80	2 890	740
88	3 500	887
96	4 170	1 040
104	4 890	1 210
112	5 670	1 390
120	6 510	1 580
128	7 410	1 780
136	8 360	2 000
144	9 370	2 220
160	11 600	2 720

Fibre ropes are to be delivered with a linear mass within ± 5 % of the nominal linear mass given in the table.

Application/Limitation

The Type Approval covers ropes with diameter from 28 mm to and including 160.

The scope of assessment is limited to evaluation of net mass pr metre, type of lay and static strength.

Type Approval documentation

Tests carried out

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

- ISO 2307:2010(E)

The fibre rope is manufactured in accordance with ISO 1346:2012(E) "*Fibre ropes - Polypropylene split film, monofilament and multifilament (pp2) and polypropylene high tenacity multifilament (pp3) - 3-,4- and 8-strand ropes*".

Job Id: **262.1-010923-3**
Certificate No: **TAK00001MY**

Marking of product

Product shall be marked with *manufacturer's name*; **Yan Cheng Shenli Rope Making Co., Ltd., China** 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 2 and 3.5 years (Certificate Retention) and at renewal after 5 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