DNV·GL

Certificate No:
TAK00001C8

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Synthetic Fibre Ropes

with type designation(s)
Polypropylene Ropes, 8-strand

Issued to
Dragon Rope (YANGZHOU) Int Mfr Co., Ltd
Yangzhou, 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"
DNV GL rules for classification – Ships
DNV GL rules for classification – High speed and light craft

Application :

Mooring and Towing of Ships and HSLCs.

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

Issued at **Høvik** on **2018-10-15**
This Certificate is valid until **2023-10-14**.
DNV GL local station: **Nanjing**

Approval Engineer: **Gisle Hersvik**

for **DNV GL**

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.

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Product description

8-strand Polypropylene Ropes
Fibre material: 2000D, 2200 dtex, breaking strength 6.0 cN/dtex, 12-18% elongation at break

8-strand braided synthetic fibre ropes (Ref. ISO 1346:2012):
- Specific gravity: 0,91 (floats in seawater)
- Elongation at break: >16%

ROPE CHARACTERISTICS		
Diameter, mm	**Nominal linear mass, kg/m**	**Minimum Breaking Load (MBL), kN (8-strand)**
28	0,354	100
30	0,407	112
32	0,463	132
36	0,586	160
40	0,723	200
44	0,875	238
48	1,040	280
52	1,220	335
56	1,420	375
60	1,630	425
64	1,850	475
72	2,340	600
80	2,890	750
88	3,500	900
96	4,170	1060
104	4,890	1 250
112	5,670	1 400
120	6,510	1 600

Fibre ropes are to be delivered with a linear mass within ± 5 % of the nominal linear mass given in the table. MBL data as provided in manufacturer's specification.

Application/Limitation

The Type Approval covers ropes with diameter from 28 mm to and including 120 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 2307:2010

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

The fibre rope is manufactured in accordance with;
- 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*".

Marking of product

Product shall be marked with *manufacturer's name*; **Dragon Rope (YANGZHOU) Int Mfr Co., Ltd, China**, *production plant* and *type designation* and *diameter*.

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 DNV GL Type Approval Certificate.

END OF CERTIFICATE