



Certificate No:
TAK000021S

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Synthetic Fibre Ropes

with type designation(s)
**TECHFLEX LIGHT 8 and TECHFLEX LIGHT 12 Mooring Lines,
TECHFLEX LIGHT 8 and TECHFLEX LIGHT12 Mooring Tails**

Issued to

**Kohinoor Ropes Pvt. Ltd.
Mumbai, India**

is found to comply with

**DNV GL class programme DNVGL-CP-0100 – Type approval – Synthetic fibre ropes for towing, mooring and anchoring
ISO 10556:2009 "Fibre ropes of polyester/polyolefin dual fibres"
OCIMF Mooring Equipment Guidelines (MEG4), Fourth Edition 2018 [test requirements]
OCIMF Guidelines for the Purchasing and Testing of SPM Hawsers (2000)**

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.

Issued at **Høvik** on **2021-06-23**

This Certificate is valid until **2026-06-22**.

DNV local station: **Mumbai NB & CMC**

for **DNV**

Approval Engineer: **Gisle Hersvik**

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**Gustav Heiberg
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.

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 300,000 USD.



Form code: TA 251

Revision: 2021-03

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Product description

TECHFLEX LIGHT 8: 8 Strand plaited / braided synthetic fibre rope

TECHFLEX LIGHT 12: 12 Strand plaited / braided synthetic fibre rope

- Fibre material: Polyester/Polyolefin dual fibres (mixed 85% PP and 15% PES)

- Specific gravity: 0.97-0.98 (floats in seawater)

Compliance with OCIMF Mooring Equipment Guidelines (MEG4)

Mooring Line Base Design Certificate - For TECHFLEX LIGHT 32 mm and 96 mm

Ref No.: KR/MEG4/TFL/ML/21/01

Mooring Line Certificates will be issued with reference to Mooring Line Base Design Certificate.

Mooring Tail Base Design Certificate - For TECHFLEX LIGHT 32 mm and 96 mm

Ref. No.: KR/MEG4/TFL/MT/21/01

Mooring Tail Certificates will be issued with reference to Mooring Tail Base Design Certificate.

Kohinoor Ropes Pvt. Ltd. has performed the full test scenario as per OCIMF MEG4.

Compliance with OCIMF 2000, Guidelines for the Purchasing and Testing of SPM Hawfers

Size 4 (32 mm) to Size 12 (96 mm)

Rope Characteristics

The Rope characteristics are tabulated on the next page observing the following:

Fibre ropes are to be delivered with a linear mass $\pm 5\%$ of the nominal linear mass given in the table.

All LDBF (Line Design Break Force) values are given for both un-spliced and spliced ropes.

Reference Number / Size		Rope Linear Density (g/m)	Rope Mass (kg/220 m)	Line Design Break Force (Kgf)	
Circumference (Inch)	Diameter (mm)			Unspliced Line	Eye Spliced Line
4	32	505	111	17500	15750
4-1/2	36	641	141	23500	21150
5	40	791	174	28500	25650
5-1/2	44	964	212	36600	32940
6	48	1145	252	43600	39240
6-1/2	52	1341	295	50600	45540
7	56	1559	343	58100	52290
7-1/2	60	1795	395	66100	59490
8	64	2036	448	74600	67140
8-1/2	68	2295	505	83700	75330
9	72	2573	566	90000	81000
10	80	3186	701	114000	102600
11	88	3864	850	138000	124200
12	96	4577	1007	163000	146700

Application/Limitation

The OCIMF MEG4 approval range covers ropes with diameter from 32 mm to and including 96 mm.

The OCIMF 2000 approval range covers ropes with diameter from 32 mm to and including 96 mm.

Type Approval documentation

Tests carried out

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

- OCIMF's Mooring Equipment Guidelines (MEG4) [requirements to testing].
- OCIMF 2000, Guidelines for the Purchasing and Testing of SPM Hawsers (1st Edition 2000) [testing].
- DNVGL-CP-0100.

The fibre ropes are manufactured in accordance with:

- Product Specification (TECHFLEX LIGHT), KR/D/SR/18.

Marking of product

Product shall be marked with *manufacturer's name*; **Kohinoor Ropes Pvt. Ltd., India**, and/or client name, *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 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.



Job Id: **262.1-032734-1**
Certificate No: **TAK000021S**

Periodical assessments (for Certificate Retention and Certificate Renewal) shall be performed according to DNVGL-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.dnvgl.com>

END OF CERTIFICATE