

TYPE APPROVAL CERTIFICATE

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

with type designation(s)
**OCEANMOORFLEX 8 and OCEANMOORFLEX 12 Mooring Lines,
OCEANMOORFLEX 8 and OCEANMOORFLEX 12 Mooring Tails**

Issued to

**INDIA NETS
Pithampur, Madhya Pradesh, 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]**

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 **2020-05-14**This Certificate is valid until **2025-05-13**.for **DNV GL**DNV GL local station: **Mumbai NB & CMC**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.



Product description

OCEANMOORFLEX 8: 8 Strand plaited / braided synthetic fibre rope
OCEANMOORFLEX 12: 12 Strand plaited / braided synthetic fibre rope

- Fibre material: Polyester/Polyolefin dual fibres
- Specific gravity: 0.98 (floats in seawater)
- With or without marine finish. UV-stabilized.
- Double construction: Mixed (PP+Polyester) Yarn. Outer Polyolefin yarn covered with high tenacity polyester (HT PES) yarn.

Compliance with OCIMF Mooring Equipment Guidelines (MEG4)

Mooring Line Base Design Certificate - For OCEANMOORFLEX 32 mm and 120 mm

Ref No.: - IN/MEG4-OMF/19/JT/001/1-01

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

Mooring Tail Base Design Certificate - For OCEANMOORFLEX 32 mm and 120 mm

Ref No.: - IN/MEG4-OMF/19/JT/002/1-01

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

INDIA NETS has performed the full test scenario as per OCIMF MEG4.

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.

Ref. Number / Size		Linear Density -rope	Mass -rope	Breaking Load (LDBF) [Kg]	
Diameter [mm]	Circ. [Inch]	[g/m]	[kg/220m]	Un-spliced	Spliced
32	4	481	105.90	21900	19710
36	4-1/2	609	133.90	27700	24930
40	5	751	165.30	34200	30780
44	5-1/2	912	200.60	40600	36540
48	6	1088	239.40	47400	42660
52	6-1/2	1274	280.25	55500	49950
56	7	1481	325.85	63200	56880
60	7-1/2	1706	375.25	72400	65160
64	8	1935	425.60	81600	73440
68	8-1/2	2181	479.75	91800	82620
72	9	2444	537.70	102000	91800

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80	10	3027	665.95	125000	112500
88	11	3670	807.50	148000	133200
96	12	4348	956.65	174000	156600
104	13	5127	1128.00	204000	183600
112	14	5945	1308.00	237000	213300
120	15	6827	1502.00	272000	244800

Application/Limitation

The OCIMF MEG4 approval range covers ropes with diameter from 32 mm to and including 120 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].
- DNVGL-CP-0100.

The fibre ropes are manufactured in accordance with;

- Design Specification (OCEANMOORFLEX) DS/MEG4/003 of 2019-06-19

Marking of product

Product shall be marked with *manufacturer's name*; **India Nets**, *place of production*, *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 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