



Certificate no.:
TAK00002J4

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Synthetic Fibre Ropes

with type designation(s)

**ULTRAFLEX 8 and ULTRAFLEX 12 Mooring Lines,
ULTRAFLEX 8 and ULTRAFLEX 12 Mooring Tails**

issued to

Maruti Ropes India Private Limited
Dist- Solapur, Maharashtra, India

is found to comply with

DNV class programme DNV-CP-0100 – Type approval – Synthetic fibre ropes for towing, mooring and anchoring

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 **Hamburg** on **2025-08-11**

This Certificate is valid until **2030-08-10**.

for **DNV**

DNV local unit: **India CMC MES**

Approval Engineer: **Gisle Hersvik**

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

ULTRAFLEX 8: 8-strand plaited / braided synthetic fibre rope

ULTRAFLEX 12: 12-strand plaited / braided synthetic fibre rope

-Fibre material: Polypropylene + Polyester

-Specific gravity: 0.98 (floats in seawater)

Compliance with OCIMF Mooring Equipment Guidelines (MEG4)

Mooring Line Base Design Certificate - For ULTRAFLEX 8-strand 30 mm and 96 mm

Ref No.: - MRI/MEG4-UF/LBDC/25/001

[Issue date: 2025-06-25]

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

Mooring Tail Base Design Certificate - For ULTRAFLEX 8-strand 30 mm and 96 mm

Ref. No.: - MRI/MEG4-UF/TBDC/25/001

[Issue date: 2025-06-25]

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

Maruti Ropes India Private Limited has performed the full test scenario as per OCIMF MEG4.

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

Size 6 (48 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 breaking load values are given for both the un-spliced and spliced ropes.

All LDBF (Line Design Break Force) and TDBF (Line Design Break Force) values are given for the spliced ropes.

ULTRAFLEX 8 and ULTRAFLEX 12: 8- and 12-strand plaited / braided synthetic fibre ropes

Size		Linear Density [kg/m]	Weight of coil [kg/220m]	Breaking Load [kgf]		Breaking Load [KN]	
Diameter [mm]	Circ. [Inch]			Un-Spliced	Spliced (LDBF/TDBF)	Un-Spliced	Spliced (LDBF/TDBF)
30	3-3/4"	0.495	108.80	20900	18800	205	184
32	4"	0.565	124.30	23550	21200	231	208
34	4-1/4"	0.632	139.00	26100	23500	256	230
36	4-1/2"	0.714	157.08	28650	25800	281	253
38	4-3/4"	0.794	174.60	31100	28000	305	275
40	5"	0.884	194.48	33550	30200	329	296
42	5-1/4"	0.982	216.00	38000	34200	373	335
44	5-1/2"	1.080	237.60	42600	38350	418	376
46	5-3/4"	1.179	259.40	46500	41900	456	411
48	6"	1.280	281.60	50500	45500	495	446
50	6-1/4"	1.391	306.00	55000	49500	539	485
52	6-1/2"	1.500	330.00	59300	53400	582	524
54	6-3/4"	1.609	354.00	63900	57500	627	564
56	7"	1.720	378.40	68650	61800	673	606
58	7-1/4"	1.855	408.00	73600	66250	722	650
60	7-1/2"	1.990	437.80	78800	70900	773	695
62	7-3/4"	2.120	466.40	84500	76050	829	746
64	8"	2.250	495.00	90300	81300	886	797
66	8-1/4"	2.400	528.00	95500	86000	937	843
68	8-1/2"	2.550	561.00	101000	90900	990	891
70	8-3/4"	2.700	594.00	107250	96500	1052	946
72	9"	2.850	627.00	115500	100400	1133	985
74	9-1/4"	3.015	663.20	117800	106000	1155	1040
76	9-1/2"	3.180	699.60	124300	111900	1219	1097
78	9-3/4"	3.350	737.00	130500	117500	1280	1152
80	10"	3.520	774.40	137200	123500	1345	1211
82	10-1/4"	3.702	814.40	145000	130500	1422	1280
84	10-1/2"	3.884	854.50	153300	138000	1503	1353
86	10-3/4"	4.064	894.00	161900	145700	1588	1429
88	11"	4.248	934.60	170500	153500	1672	1505
90	11-1/4"	4.455	980.00	177800	160000	1744	1569
92	11-1/2"	4.655	1024.00	186200	167600	1826	1644
94	11-3/4"	4.859	1069.00	194200	174800	1904	1714
96	12"	5.059	1113.00	202100	181900	1982	1784

The data in the table is provided by Maruti Ropes India Private Limited.

Application/Limitation

The approval range covers ropes with diameter from 30 mm to and including 96 mm.

The OCIMF MEG4 approval range covers ropes with diameter from 30 mm to and including 96 mm.

The OCIMF 2000 approval range covers ropes with diameter from 30 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].
- DNV-CP-0100.

The fibre ropes are manufactured in accordance with:

- Product Specification (ULTRAFLEX), Form No. MRI/MEG4-UF-04.

Marking of product

Product shall be marked with *manufacturer's name*: **Maruti Ropes India Private Limited, India**, *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.

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 CERTIFICATE