Certificate no.:
TAK00002G2

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Synthetic Fibre Ropes

with type designation(s)
NYLON MOORING LINE

issued to
Garware Technical Fibres Limited
Pune, Maharashtra, **India**

is found to comply with
DNV class programme DNV-CP-0100 – Type approval – Synthetic fibre ropes for towing, mooring and anchoring
OCIMF Guidelines for the Purchashing and Testing of SPM Hawsers (2000)

Application:

Hawsers for Single Point Mooring, and for mooring and towing applications.

Issued at **Hamburg** on **2025-03-20**
This Certificate is valid until **2030-03-19**.
DNV local unit: **India CMC MES**

for **DNV**

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

NYLON MOORING LINE: 8-strand braided synthetic fibre rope

- *Fibre material: Polyamide (Nylon) Yarn. 1680 den/1880 dtex*
- *Specific gravity: 1.14 (Sinks in sea water)*

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

Tested: Size 6 (48 mm) and Size 15 (120 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 ±5% of the nominal linear mass given in the table.

Dimensions and linear weights are tabulated.

All NWBS (New Wet Break Strength) values are given for the un-spliced ropes.
All NDBS (New Dry Break Strength) values are given for both un-spliced spliced ropes.

NYLON MOORING LINE: 8-strand braided synthetic fibre ropes

Rope Dimensions			Linear Weight	Rope Strength factor	Breaking strength [Kgf]		
Size No.	Diameter [mm]	Circ. [Inch]	[kg/100 m]		NWBS	NDBS	
					(Unspliced)	(Spliced)	(Unspliced)
6	48	6	150	0.686	31640	40680	45200
6.5	52	6.5	176	0.682	45640	58680	65200
7	56	7	203	0.680	52150	67050	74500
7.5	60	7.5	232	0.678	59150	76050	84500
8	64	8	265	0.675	66570	85590	95100
8.5	68	8.5	286	0.672	74550	95850	106500
9	72	9	336	0.670	80500	103500	115000
9.5	76	9.5	374	0.665	89600	115200	128000
10	80	10	415	0.658	100800	129600	144000
10	82	10	435	0.658	109200	140400	156000
11	88	11	501	0.650	115500	148500	165000
12	96	12	597	0.640	136500	175500	195000
13	104	13	697	0.630	169400	217800	242000
14	112	14	910	0.625	193900	249300	277000
15	120	15	940	0.615	200200	257400	286000
15*SH	120	15	10050	0.615	216090	277830	308700

The data in the table is provided by Garware Technical Fibres Limited.
SH: Super Hawser

Application/Limitation

The OCIMF 2000 approval range covers ropes with diameter from 48 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 Guidelines for the Purchasing and Testing of SPM Hawsers (2000)
- DNV-CP-0100.

The fibre ropes are manufactured in accordance with:
- Product Specification (NYLON), QAD/D/31 of 2025-03-07.

Marking of product

Product shall be marked with *manufacturer's name*: **Garware Technical Fibres 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