

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Synthetic Fibre Ropes**

with type designation(s)  
**ACELINE SUHD026B**

Issued to

**Tokyo Seiko Rope Mfg. Co., Ltd.**  
**Gamagori, Aichi Pref., Japan**

is found to comply with

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

## 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 **2019-05-21**

This Certificate is valid until **2024-05-20**.

DNV GL local station: **Yokohama**

Approval Engineer: **Gisle Hersvik**



for **DNV GL**

Digitally Signed By: Törnqvist,  
Rikard  
Location: DNV GL Høvik, Norway  
Signing Date: 22.05.2019

**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.



## Product description

**ACELINE SUHD026B**, 12-strand braided ropes made from 100% High Modulus Polyethylene (HMPE).

- Fibre material: Multi-filament HMPE (1600D)
- Specific gravity: 0,97 (floats in seawater)

ROPE CHARACTERISTICS – ACELINE				
Diameter, mm	SUHD026B		SUHD026B	
	Nominal Linear Mass, [kg/200m]	[g/m]	Minimum Breaking Load (MBL), [kN]	[tf]
24	69,0	345	530	54,0
26	81,0	405	610	62,2
28	93,0	465	690	70,4
30	108	540	790	80,6
32	117	585	850	86,7
34	135	675	970	98,9
36	153	765	1 080	110
38	171	855	1 200	122
40	189	945	1 300	133
42	207	1 035	1 420	145
44	225	1 125	1 530	156
45	234	1 170	1 590	162
46	243	1 215	1 650	168
48	252	1 260	1 700	173
50	288	1 440	1 920	196
55	351	1 755	2 300	235
60	423	2 115	2 730	278
65	495	2 475	3 150	321
70	567	2 835	3 560	363
75	648	3 240	4 020	410
80	738	3 690	4 530	462

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

## Application/Limitation

The approval covers ropes with diameter from 24 mm to and including 80 mm, as per above table.

Scope of assessment is limited to evaluation of net mass per metre, type of lay and of static strength.

## Type Approval documentation

1. Assessment Report from DNV GL Yokohama of 2019-04-12.
2. Survey Report from DNV Yokohama of 2010-07-23.
3. Test Results from Tokyo Seiko Rope Mfg. Co., Ltd. of 2019-03-26 (ACELINE SUHD026B 80 mm).
4. NKK Certificate/Report No. RP 19 NG-TS 69 of 2019-02-04 (ACELINE SUHD026B 48 mm).
5. Specification of Aceline SUHD026B.
6. Documents for DNV Type Approval of 2018-11-02.
7. Application for Type Approval of 2018-09-27.

## Tests carried out

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

- ISO 2307:2010 (Fibre ropes -- Determination of certain physical and mechanical properties)

Job Id: **262.1-031038-1**  
Certificate No: **TAK00001KY**

Fibre ropes are covered by ISO 10325-2009 Fibre ropes – High modulus polyethylene 8-strand braided ropes, 12-strand braided ropes and covered ropes.

### **Marking of product**

Product shall be marked with *manufacturer's name*: **Tokyo Seiko Rope Mfg. Co., Ltd., Japan**, *type designation, weight and length*.

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 the DNV GL Type Approval Certificate.

END OF CERTIFICATE