DNV·GL

TYPE APPROVAL CERTIFICATE

Certificate No:
TAE000000C
Revision No:
1

This is to certify:

That the Data transmission cables and systems

with type designation(s)
AICI F6 (NEK 606)

Issued to
Sohome AS
Søreidgrend, Norway

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Fiber optic cable.
Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Issued at **Høvik** on **2019-11-13**
This Certificate is valid until **2021-06-29**.
DNV GL local station: **Bergen**

Approval Engineer: **Ivar Bull**

for **DNV GL**

Trond Sjåvåg
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.

Job Id: **262.1-019769-2**
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Optical cables designed according to NEK TS 606 Ed5 : 2016
Type AICI F6 / F 104 *

Optical fibres

Fibre type	**9/125**	**50/125-OM2**	**50/125-OM3**	**50/125-OM4**	**62.5/125-OM1**
Fiber data sheet	C03	C34	C31	C32	C02
IEC60793-2-10, 20, 50 cat.	B.1.3	A1a.1	A1a.2	A1a.3	A1b
IEC11801 classification	OS2	OM2	OM3	OM4	OM1
ANSI/TIA/EIA classification	CAAB	AAAB	AAAC	AAAD	AAAA
ITU-T type	G652.D	G651.1	G651.1	G651.1	-
Core diameter	See mode field diameter	50 ± 2 µm	50 ± 2 µm	50 ± 2 µm	62.5 ± 2.5 µm
Mode field diameter	1310 nm 9.0 ± 0.4 µm 1550 nm 10.1 ± 0.5 µm				
Cladding diameter	125 ± 0.7 µm	125 ± 1.0 µm	125 ± 1.0 µm	125 ± 1.0 µm	125 ± 1.0 µm
Primary coating diameter (nominal)	242 ± 7 µm	242 ± 5 µm	242 ± 5 µm	242 ± 5 µm	242 ± 7 µm
Attenuation (Maximum values) 850 nm 1300 nm 1310 nm 1550 nm	 ≤ 0.39 dB/km ≤ 0.25 dB/km	 ≤ 2.7 dB/km ≤ 0.8 dB/km	 ≤ 3.0 dB/km ≤ 1.0 dB/km	 ≤ 3.0 dB/km ≤ 1.0 dB/km	 ≤ 3.2 dB/km ≤ 1.0 dB/km
Bandwidth(OFL) 850 nm 1300 nm		 >500 MHz·km >500 MHz·km	 >1500 MHz·km >500 MHz·km	 >3500 MHz·km >500 MHz·km	 >200 MHz·km >600 MHz·km
Chromatic Dispersion 1285-1330 nm 1550 nm 1625 nm	 ≤ 3 ps/nm·km ≤ 18 ps/nm·km ≤ 22 ps/nm·km				
Polarization Mode Disp. Max. Individual Fibre PMD_Q Link Design Value	 ≤ 0.5 ps/√km ≤ 0.2 ps/√km				
Group index of refraction 850 nm 1300/1310 nm(MMF/SMF) 1550 nm 1625 nm	 1.467 1.468 1.468	 1.482 1.477	 1.482 1.477	 1.482 1.477	 1.496 1.491

* F6 is designed according to NEK 606 Ed4: 2009.
Minimum bending diameter of cable: 15 x outer diameter

Manufacturer Place

DNV GL ref. no. 136960

Application/Limitation

Temperature window

Operation:	-40°C to +60°C
Installation:	-10°C to +60°C
Storage:	-40°C to +70°C

The requirements of SOLAS Amendments Chapter II-1, Part D, Reg. 45, 5.2 (provision to be taken to limit Fire Propagation along Bunches of Cables or Wires) are fulfilled without any additional measures.

Type Approval documentation

Tests carried out
Tested according to IEC 60794-1/-2, IEC 60332-3-22, IEC 60332-3-24, IEC 60754-1/2 and IEC 61034-1/2

Marking of product
Bergen Cabling - part no. - AICI - fibre type – Lot No.

Periodical assessment
The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine tests (RT) and selected type tests (ref. to applicable class programs) checked (if not available these tests shall be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer’s product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE