



MARINE DIVISION

Certificate number: 12978/B0 BV

File number: ACE 01/145/10

Product code: 25011

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

NEXANS
PAILLART - FRANCE

for the type of product

CABLES (LOW VOLTAGE)

OPTICAL FIBER CABLE 0-HAL

Requirements:

BV Rules for the Classification of Steel Ships.

IEC 60092-359, IEC 60332-3-22 Cat. C, IEC 60502-1, IEC 61034/1, IEC 60754-1/2, IEC 60793-2, IEC 60794-1-2

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 02 Aug 2018

For BUREAU VERITAS,

At BV VALENCIENNES, on 02 Aug 2013,

Lucien Fratini



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Optical fiber for Marine and Offshore applications.

1.1 - Specification:

Rated temperature:	-25°C / +75°C
Flame retardant:	IEC 60332-3-22 Cat.C
Halogen free:	IEC 60754-1
Low smoke:	IEC 61034-1/2

1.2 - Construction

Core:	Silica optical core
Inner sheath:	SHF1
Outer sheath:	SHF1

1.3 - Range

Type	Fiber Count	Cable diameter (mm)
Optical fiber cable type "0 HAL"		
2PC914	2	6
2PC915	4	7
2PC909	6	8
2PC916	8	8.5
2PC908	12	10

2. DOCUMENTS AND DRAWINGS:

According to Manufacturer's Specifications FILOTEX ref.2PC914, 2PC915, 2PC909, 2PC916, 2PC908 dated 18/09/02.

3. TEST REPORTS:

Nexans:

Tests report dated 17/01/03.

Tests report ref. DTR06/13 issue 1, dated 29.04.2013

4. APPLICATION / LIMITATION:

BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The described optical fibers are to be supplied by NEXANS in compliance with the type and the requirements described in this certificate.

5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

5.3 - BV product certificate is required.

6. MARKING OF PRODUCT:

The cable shall be marked on the surface outer sheath, in a durable legible and visible manner, with the following information through the length of cable:

- 1) - Voltage grade.
- 2) - Cable symbol and temperature class.
- 3) - Number of conductors and conductor size.
- 4) - Applicable standard(s) to flame retardant and fire resistance if any
- 5) - Manufacturer's name or trade mark.
- 6) - Year of manufacture

7. OTHERS:

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the cables at any time, and that NEXANS, will accept the responsibility for informing shipbuilders or their sub-contractors of the proper methods of use and general maintenance of the cables and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 12978/A0 BV issued on 26/06/2003 by the Society.

*** END OF CERTIFICATE ***