



CERTIFICATE NUMBER 19-LD1827517-1-PDA

EFFECTIVE DATE 04-July-2019

EXPIRATION DATE 03-July-2024

ABS TECHNICAL OFFICE London

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

PRYSMIAN CABLES SPAIN

located at

CARRETERA C-15 KM 2, POLIGONO MASIA D'EN NOTARI, VILANOVA I LA GELTRU –
BARCELONA, SPAIN 08800

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product Cable, Halogen-Free Shipboard Cable

Model AFUMEX FRIS NAU XA 0.6/1kV

This Product Design Assessment (PDA) Certificate remains valid until 03-July-2024 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

Theodoros Chatzigkaidas, Senior Engineer

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

PRYSMIAN CABLES SPAIN

CARRETERA C-15 KM 2

POLIGONO MASIA D'EN NOTARI

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Tier: 2 - PDA Issued *TC*

Product: Cable, Halogen-Free Shipboard Cable

Model: AFUMEX FIRS NAU XA 0.6/1kV

Intended Service:

Power control and lighting cable for use on ABS classed vessels and offshore facilities in accordance with the listed ABS Rules and International Standards.

Description:

Unarmoured flame retardant, fire resistant (cables with overall diameter of 20mm or less), low smoke, halogen free, shipboard power, control and lighting cable with XLPE insulation and SHF1 sheath.

Rating:

Rated Voltage: 0.6 / 1 kV

Max continuous conductor temperature: 90 Deg. C

Service Restriction:

- Unit Certification is not required for this product.
- If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
- The cable is not suitable as a propulsion cable.

Comments:

- The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- Records of test are to be maintained and submitted upon request.

Notes/Drawing/Documentation:

Drawing No. 1085/LE2109, EN17025 ENAC Certificate, Spain, Date: 14.03.2014, Page 1

Drawing No. ES-0007/1990, Quality Management System Certificate ISO9001:2015, Date:12.07.2018, Pages: 02

Drawing No. 0209/19, Certificate of Quality and DNVGL certificates, Date:18.02.2019, Pages: 13

Drawing No. DNV-PST-2018, Tests reports, DNVGL Barcelona, Revision: 00, Date: 27.09.2018, Pages: 48

Drawing No. Impact Analysis-002, Impact Analysis , Prysmian Group Technological Laboratory, Spain, Revision: 00, Date: 12.04.2019, Pages: 08

Drawing No. di28562- di28565, Tests reports, Prysmian Barcelona, Revision: 00, Date: 12.02.2019, Pages: 04

Drawing No. di28378 and di28379, Tests reports, DNVGL Barcelona, Revision: 00, Date: 27.09.2018, Pages: 02

Drawing No. di28389, Tests reports, Prysmian Barcelona, Revision: 00, Date: 28.09.2018, Pages: 03

Drawing No. 561/2019, Tests reports, Prysmian Cables & Systems France, Fire & Physical chemical tests Laboratory, Spain, Revision: 00, Date:14.05.2019, Pages: 04

Drawing No. SP00105, Datasheet, AFUMEX FRIS NAU XA 0,6/1kV, Revision: 4.0, Date: 16.05.2018 Pages: 05

Terms of Validity:

This Product Design Assessment (PDA) Certificate 19-LD1827517-1-PDA, dated 04/Jul/2019 remains valid until 03/Jul/2024 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the

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Tier: 2 - PDA Issued

manufacturer and intended client.

STANDARDS

ABS Rules:

- Marine Vessels Rules (2019): 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-3/9.1, 4-8-3/9.3, 4-8-3/9.4, 4-8-3/9.5, 4-8-3/9.7, 4-8-3/9.11, 4-8-3/9.9, 4-8-3/Table 6
- Steel Vessels for Service on Rivers and Intracoastal Waterways Rules (2019): 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-5-4/13.1.1, 4-5-4/13.1.2, 4-5-4/13.1.3, 4-5-4/13.1.4, 4-5-4/13.1.5, 4-5-4/Table 9
- Steel Barge Rules (2019): 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-1-3/9.1

- High Speed Crafts (2019): 1-1-4/11.9, 1-1-A2, 1-1-A3, 4-6-4/13.1.1, 4-6-4/13.1.2, 4-6-4/13.1.3, 4-6-4/13.1.4, 4-6-4/13.1.5, 4-6-4/Table 9

- Facilities on Offshore Installations (2019): 1-1-4/9.7, 1-1-A2, 1-1-A3, 3.6/13.1, 3.6/13.5, 3.6/13.7, 3.6/13.9
- Mobile Offshore Units (2019): 1-1-4/9.7, 1-1-A2, 1-1-A3, 6-1-1/9, 6-1-1/13, 4-1-1/7.9, 4-3-4/7.1.1, 4-3-4/7.1.2, 4-3-4/7.1.3, 4-3-4/7.1.4, 4-3-4/7.1.5, 4-3-4/Table 1

National:

N/A

International:

IEC 60092-353 Ed 4.0:2016,
IEC 60331-2 Ed 2.0B:2018,
IEC 60332-1-2 Ed 1.1B:2015,
IEC 60332-3-22 Ed 2.0:2018,
IEC 60754-1 Ed 3.0: 2011,
IEC 60754-2 Ed 2.0: 2011,
IEC 61034-2 Ed 3.0:2005+AMD1:2013

Government:

N/A

EUMED:

N/A

OTHERS: *TC*

N/A