Certificate number: 17390/D0 BV
File number: ACE 01/796/01
Product code: 2501H

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

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

MIGUELEZ, S.L.

LEON - SPAIN

for the type of product

CABLES (LOW VOLTAGE)

BARRYFLEX RV-K & AFIRENAS-X RZ1-K.
0.6/1 kV.

Requirements:
BUREAU VERITAS Rules for the Classification of Steel Ships.
IEC 60092-350 (2020), IEC 60092-353 (2016), IEC 60092-360 (2021)
IEC 60228 (2023)
IEC 60332-1-2 (2004), IEC 60332-3-22 Cat.A (2018)
IEC 60754-1/2 (2011)
IEC 61034-1/2 (2013)

This certificate is issued to attest that Bureau Veritas Marine & Offshore 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: 20 Nov 2030

For Bureau Veritas Marine & Offshore,
At BV MADRID, on 20 Nov 2025,
Laura Gutierrez Cruz

This certificate was created electronically and is valid without signature

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 Marine & Offshore. 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 & Offshore 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 Marine & Offshore 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 :

Flame retardant, Marine Power, Lighting and Control cables.

1.1 - Specifications:

Rated voltage:	0.6/1 kV according to IEC 60092-353
Temperature class:	90°C
Flame retardant:	IEC 60332-1 (Both Types) and IEC 60332-3-22 (Z1 Type only)
Halogen Free:	IEC 60754-1/2 (Z1 Type only)
Low Smoke:	IEC 61034-1/2 (Z1 Type only)

1.2 - Construction:

Conductor:	Stranded plain annealed copper - Class 5
Insulation:	XLPE
Filler:	PVC or Halogen Free Thermoplastic compound depending on type
Sheath:	ST2 (V Type) SHF1 (Z1 Type)

1.3 - Product Range:

Type	Number of Core	Cross-Sect. (mm^2)	Remarks
BARRYFLEX RV-K	1 2 & 3	1.5 to 500 1.5 to 70	Flame Retardant according to IEC 60332-1
AFIRENAS-X RZ1-K	4 5	1.5 to 240 1.5 to 120	Flame Retardant according to IEC 60332-1 & IEC 60332-3-22 (Cat.A) Halogen Free according to IEC 60754-1/2 Low Smoke according to IEC 61034-1/2

2. DOCUMENTS AND DRAWINGS :

MIGUELEZ, S.L.:

Technical Specifications, Barryflex RV-K 2nd Ed. dated January 2009
Technical Specifications, Afirenas-x RZ1-K 2nd Ed. dated January 2009
Technical Specifications for Cables and Wires both dated January 2009.

3. TEST REPORTS :

CEIS:

RV-K: Test Reports No. CBL.09/3430/09, CBL.09/3431/09 and CBL.09/3432/09 all dated 2009/11/03
RZ1-K: Test Reports No. CBL.09/3426/09, CBL.09/3427/09 and CBL.09/3428/09 all dated 2009/11/03.
Test reports N° CEL-0558/21-1 and CEL-0559/21-1, dated 12 Jul 2021.
Test report N° CEL-0318/22-2, dated 16 Sep 2022.

MIGUELEZ, S.L.:

Tests reports N°2118509 & 2117473, both dated 07.04.2015.

4. APPLICATION / LIMITATION :

4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships.
4.2 - Approval valid for units having to comply with IMO Resolution A.1023(26) (The "MODU Code").
4.3 - ST2 insulated cables are not to be used either in refrigerated spaces, or on decks exposed to the weather of ships classed for unrestricted service.
4.4 - ST2 material should be avoided for installation in passenger vessels and in evacuation areas.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The above products are to be supplied by **MIGUELEZ, S.L.** in compliance with the type described in this certificate.
5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.
5.3 - **MIGUELEZ, S.L.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.
5.4 - For information, **MIGUELEZ, S.L.** has declared to Bureau Veritas the following production site:

MIGUELEZ, S.L.
Av PABLO DIEZ, 157
24010 LEON
SPAIN

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 throughout the length of cable:

- Rated voltage
- Number of cores and cross-sectional area of the conductors
- Manufacturer's name or trademark
- Applicable standards to flame retardant and fire resitance (with the category if applicable)
- Code designation (optional)

7. OTHERS :

7.1 - It is **MIGUELEZ, S.L.**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate No. 17390/C1 BV issued by the Society.

***** END OF CERTIFICATE *****