



Marine & Offshore

Certificate number: 11376/D1 BV

File number: ACE 01/731/01

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*

**PRYSMIAN CABLES SPAIN SA**  
VILANOVA I LA GELTRÚ(BCN) - SPAIN

*for the type of product*

**CABLES (LOW VOLTAGE)**

450/750V and 300/500V

Type: AFUMEX 750 H07Z1-K (AS); 750 H07Z-K (AS); 500 H05Z-K (AS); H07Z-K RH; H05Z-K RH

### Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

IEC 60228 (2004)

IEC 60332-1 (2004), IEC 60332-3-22 (2009)

IEC 60754-1/2 (2011)

IEC 61034-1/2 (2005)

*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: 23 Jan 2025**

### For Bureau Veritas Marine & Offshore,

At BV BILBAO, on 18 Feb 2021,

Juan Jose GUTIERREZ GARCIA



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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### **1. PRODUCT DESCRIPTION:**

Flame retardant, Halogen Free and Low Smoke flexible wire for fixed wiring and control boards.

#### **1.1 - Specifications:**

Rated voltage:	300/500V (H05Z-K and H05Z-K RH types) 450/750V (H07Z1-K, H07Z-K and H07Z-K RH types)
Temperature class:	70°C (H07Z1-K type) 90°C (H05Z-K RH, H07Z-K, H05Z-K, H07Z-K RH type)
Flame retardant:	IEC 60332-1-2, IEC 60332-3-22
Halogen free:	IEC 60754-1/2
Smoke emission:	IEC 61034-1/2
Hydrocarbon resistant:	SE1 according to IEC 60502-1 (H05Z-K RH and H07Z-K RH type)
Design specification:	EN 50525-3-31 (H07Z1-K type) EN 50525-3-41 (H05Z-K and H07Z-K type)

#### **1.2 - Construction:**

Conductor:	Bare flexible copper - Class 5
Insulation:	Thermoplastic type TI7 according to EN 50363-7 (H07Z1-K type) Cross-linked compound type EI5 according to EN 50363-5 (H07Z-K, H05Z-K, H07Z-K RH, H05Z-K RH type)

#### **1.3 - Product Range:**

Type	Nber of core	Cross Sect. Areas (mm <sup>2</sup> )
AFUMEX 750 H07Z1-K (AS)	1	1.5 to 25
AFUMEX 750 H07Z-K (AS)	1	1.5 to 240
AFUMEX 500 H05Z-K (AS)	1	0.5 to 1
AFUMEX H07Z-K RH	1	1.5 to 16 and 95
AFUMEX H05Z-K RH	1	0.5 to 1

### **2. DOCUMENTS AND DRAWINGS:**

#### **PRYSMIAN:**

According to specifications No.s RP 42.01 rev.6 dated 2000-09-27 and NCP No. 042/A9 Rev. 02 dated 02/10.

Documents filed in ACE 01/731/01.

Data sheet H05Z-K No.13.0526, dated 2014-02-10.

Data sheet H07Z-K No.13.0526 Rev. V5, dated 2014-10-10.

Data sheet H07Z-K RH No.18.0031, Rev. 6.0, dated 26 Apr 2019.

### **3. TEST REPORTS:**

#### **PRYSMIAN:**

Test reports: Ref. BCL 700 548/4 (The tests were witnessed by L.R. Surveyor)

Test Report di6592 (IEC 60332-3-22) issued on 30-11-2009 and witnessed by BV's Surveyor

Test Report bt2824 (Routine tests) issued on 30-03-2010

Test Report H05Z-K No.di13016 (IEC 60332-3-22) issued on 19-05-2014 and witnessed by BV's Surveyor

Test Report H07Z-K No.di13050 (IEC 60332-3-22) issued on 19-05-2014 and witnessed by BV's Surveyor

Test reports: Ref. TTR-11/2015 (The tests were witnessed by Bureau Veritas. Surveyor)

Test report N° di\_28421, dated 17 Oct 2018, witnessed by BV's Surveyor.

### **4. APPLICATION / LIMITATION:**

BUREAU VERITAS Rules for the Classification of Steel Ships.

**5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The above products are to be supplied by **PRYSMIAN CABLES SPAIN SA** 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.

5.4 - For information, **PRYSMIAN CABLES SPAIN SA** has declared to Bureau Veritas the following production sites:

**PRYSMIAN CABLES SPAIN SA**  
Carretera C-15 - Km. 2  
08800 VILANOVA I LA GELTRÚ(BCN)  
SPAIN

**PRYSMIAN CABLES SPAIN, S.A. -Planta SANTA PERPETUA DE MOGODA-**  
Carrer Can Vinyalets, 2  
08130 Santa Perpetua de Mogoda  
SPAIN

**Prysmian Group Finland Oy Oulu Plant**  
Johdintie 5  
FIN-90630 Oulu  
FINLAND

**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.
- 5) - Manufacturer's name or trademark.
- 6) - Year of manufacture.

**7. OTHERS:**

7.1 - It is **PRYSMIAN CABLES SPAIN SA** 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. 11376/D0 BV issued on 23 Jan 2020 by the Society.

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