



Marine & Offshore

Certificate number: 08564/E0 BV

File number: ACE 01/126/02

Product code: 2505H

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

UNTEL KABLOLARI SANAYI VE TICARET A/S
KOCAELI - TURKEY

for the type of product

INSTRUMENTATION AND COMMUNICATION CABLES

150/250 V

Type: FMGCG

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

IEC 60092-350 (2014), IEC 60092-360 (2014), IEC 60092-376 (2017)

IEC 60228 (2004)

IEC 60332-1-2 (2015), IEC 60332-3-22 (2018)

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: 21 Nov 2023

For Bureau Veritas Marine & Offshore,

At BV ISTANBUL, on 21 Nov 2018,

Gurcan Yilmaz



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:

FMGCG are Flame Retardant Marine and Offshore Telecommunication cables.

1.1 - Specifications:

Rated voltage:	150 /250 V according to IEC 60092-376
Temperature class:	90°C
Flame retardant:	IEC 60332-1 and IEC 60332-3-22 (Cat. A)

1.2 - Construction:

Conductor:	Annealed or tinned copper (Class 2 or Class 5)
Insulation:	Ethylene Propylene Rubber - EPR
Separator:	Plastic foil
Screen:	Electrolytic copper braided screen
Separator	Foil
Outer Sheath:	Chloroprene - SE

1.3 - Product Range:

Type	Number of Pair(s)/Quad(s)	Cross-section area (mm ²)
FMGCG	1P to 4P	0.50 and 0.75
	4P to 24P	0.75
	1Q	0.75

2. DOCUMENTS AND DRAWINGS:

Included in fax SMS/F/1502/CT/98 dated 13/08/1998 from BV ISTANBUL.

Specifications and Data sheet issued by Untel Kablolari.

Data sheet ref. FR 70-062, rev.1, dated 30 Oct 2018.

3. TEST REPORTS:

Test reports dated 21/07 - 07/08/1998

In-house Test Report dated 08.05.2008 - Dimensional, Electrical and Flame Tests (Witnessed by BV's Surveyor).

Quality control report N° 704/418-1 dated 10/Feb./2010 and witnessed by BV's Surveyor.

Type test report dated 13.08.2013, witnessed by BV's Surveyor.

Tests reports dated 19.10.2018, witnessed by BV's Surveyor.

4. APPLICATION / LIMITATION:

BUREAU VERITAS Rules for the Classification of Steel Ships and IEC 60092 series

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The described cables are to be supplied by **UNTEL KABLOLARI SANAYI VE TICARET A/S** 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 - **UNTEL KABLOLARI SANAYI VE TICARET A/S** 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, **UNTEL KABLOLARI SANAYI VE TICARET A/S** has declared to Bureau Veritas the following production site:

UNTEL KABLOLARI SANAYI VE TICARET A/S
DEMIRCILER KOYU
MAKINE OSB
6.CADDE NO.4 41455
DILOVASI
KOCAELI
TURKEY

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:

- 6.1 - Voltage grade.
- 6.2 - Cable symbol and temperature class.
- 6.3 - Number of conductors and conductor size.
- 6.4 - Applicable standard(s) to flame retardant.
- 6.5 - Manufacturer's name or trade mark.
- 6.6 - Year of manufacture.

7. OTHERS:

7.1 - It is **UNTEL KABLOLARI SANAYI VE TICARET A/S**'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 N° 08564/D0 BV issued on 16 Sep 2013 by the Society.

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