



Marine & Offshore  
Division

Certificate number: 06227/E0 BV

File number: ACE 01/126/01

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*

**UNTEL KABLORARI SANAYI VE TICARET A/S**  
KOCAELI - TURKEY

*for the type of product*

**CABLES (LOW VOLTAGE)**

0.6/1 kV

MGG & MGCG series.

### Requirements:

BV Rules for the Classification of Steel Ships.

IEC 60092-350/353/360 (2014), IEC 60228 (2004), IEC 60332-1-2 (2009), IEC 60332-3-22 Cat. A (2009).

*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 is a renewal of certificate N° 06227/D0 BV expiring on 24/06/2015*

**This certificate will expire on: 24 Jun 2020**

**For BUREAU VERITAS,**

At BV ISTANBUL, on 18 Jun 2015,

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. 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 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 :**

The **MGG & MGCG series** are low voltage cables for Marine and Offshore applications.

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

|                  |                                     |
|------------------|-------------------------------------|
| Rated voltage:   | 0.6/1kV                             |
| Flame retardant: | IEC 60332-1-2, IEC 60332-3-22 Cat.A |

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

|               |   |
|---------------|---|
| Conductor:    | Stranded, annealed copper wire Class 2 (Class 5 and/or tinned on request) |
| Insulation:   | HEPR  |
| Screening:    | Copper braided screen (MGCG EMC only)                                     |
| Outer sheath: | SE  |

#### **1.3 - Approval range:**

| Type | Number of cores | Cross sectional areas (mm <sup>2</sup> ) |
|------|-----------------|--|
| MGG  | 1               | 1.5 - 300                                |
|      | 2               | 1.5 - 25                                 |
| MGCG | 3               | 1.5 - 240                                |
|      | 4               | 1.5 - 150                                |
|      | 5 - 61          | 1.5 - 4                                  |

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

According to documents filed in ACE 01/106/01.

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

Test report N° 1.08.16.01-95-606 dated 20.07.1995 issued by Turkish Standards Institution.

Test reports N° 2010BV10 and 2010BV11 dated 11/feb./2010

Test reports N° 02.2010.LR.01 and 02.2010.LR.02 dated 05/Feb./2010

Tests reports dated 15.Apr.2015.

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

BV Rules for the Classification of Steel Ships and IEC 60092 series.

### **5. PRODUCTION SURVEY REQUIREMENTS :**

5.1 - The **MGG & MGCG series** are to be supplied by **UNTEL KABLOLARI SANAYI VE TICARET A/S** 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:

6.1 - Voltage grade

6.2 - Cable symbol and Temperature

6.3 - Applicable standard to flame retardant

6.4 - No. of conductor and conductor size

6.5 - Manufacturer's name or trade mark

6.6 - 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 units at any time and that **UNTEL KABLOLARI SANAYI VE TICARET A/S**, will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

7.2 - This Certificate supersedes the Type Approval Certificate N° 06227/D0 BV issued on 24.06.2010. by the Society.

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