DNV·GL

Certificate No:
TAE00002AK

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Low Voltage Cable

with type designation(s)
XO2Z1-K(AS), XO3Z1-K(AS)

Issued to
TOP CABLE, S.A.
Rubi Barcelona, Spain

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft
DNV GL class programme DNVGL-CP-0399 – Type approval – Electric cables

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Type	Rated voltage (V)	Temp. class (°C)
XO2Z1-K(AS)	150/250V	90
XO3Z1-K(AS)	150/250V	90

Issued at **Høvik** on **2017-10-10**
This Certificate is valid until **2022-10-09**.
DNV GL local station: **Barcelona**

Approval Engineer: **Georgy Abramenko**

for **DNV GL**

Andreas Kristoffersen
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Product description

Type: TOXFREE MARINE XO2Z1-K(AS), XO3Z1-K(AS) 150/250V

Construction:	
Conductors:	Annealed, stranded copper
Core insulation:	HF XLPE
Individual screen:	Al/polyester + tinned Cu drain wire (O3 type only)
Common screen:	Al/polyester + tinned Cu drain wire
Outer sheath:	SHF1

Number of paired cores	Cross-section
1 2 4 7 10 14 19 24	0,75

Application/Limitation

Control and instrumentation. Flame retardant in bunch Cat.A. Halogen free. Low smoke.

This type of cable is flame retardant in accordance with IEC 60332-1.

The requirements of SOLAS Amendments Chapter II-1, Part D, Reg. 45, 5.2 (provision to be taken to limit Fire Propagation along Bunches of Cables or Wires) are fulfilled without any additional measures.

Type Approval documentation

Tests carried out

Type tests according to IEC 60092-350, IEC 60092-376, IEC 60332-1, IEC 60332-3-22, IEC 60754-1/2 and IEC 61034-2.

Marking of product

TOP CABLE - TOXFREE MARINE XO2Z1-K (AS) – 150/250 V – size - IEC 60092-376 - IEC 60332-3-22,
TOP CABLE - TOXFREE MARINE XO3Z1-K (AS) – 150/250 V – size - IEC 60092-376 - IEC 60332-3-22

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE