Certificate No:
TAE00004S1

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Low Voltage Cable

with type designation(s)
YTE- n.p.c.

Issued to
Koch Kabel AG
Pfaffnau, LU, Switzerland

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application :

PTFE single-core cable for cryogenics applications

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

Rated voltage (V)	**750**
Temp. class (°C)	**260**

Issued at **Høvik** on **2023-05-11**
This Certificate is valid until **2028-05-10**.
DNV local unit: **Augsburg**

Approval Engineer: **Carsten Hunsalz**

for **DNV**

Frederik Tore Elter
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.

Product description

PTFE single-core cable for cryogenics applications

Type: YTE- n.p.c.

Rated voltage:	U_{eff} = 750 V
Operating temperature:	-196°C up to 260°C (20000h)
Conductor:	copper nickel plated
Insulation:	HEI-tape®, Polyimid-tape, PTFE

Number of cores:	Cross-sectional area:
1	0,5 mm² to 50 mm²

Application/Limitation

Cable for cryogenics applications

Measures for limitation of the propagation of fire along cable bundles are required (fire stops)

Type Approval documentation

Tests carried out

Standard	Release	General description	Limitation
ANSI/NEMA HP 3-2012	2021-03	Electrical and Electronic Polytetrafluoroethylene (PTFE) Insulated High-Temperature Hook-Up Wire, Types ET (250 V), E (600 V), and EE (1,000 V)	
IEC 60228	2004-11	Conductors of insulated cables	
VDE 0207-6	2004-10	Insulating and sheating compounds for cables and flexible cords	
IEC 60332-1-2	2015-07	Tests on electric and optical fibre cables under fire conditions – Part 1-2: Test for vertical flame propagation for a single insulated wire or cable –Procedure for 1 kW pre-mixed flame	
VG 95218-28	2019-04	Electrical cables and insulated wires - Part 28: Cable screened, with sheath; detail specification	partly
VG 95218-29	2022-03	Cables and insulated wires – Part 29: Cables, longitudinal watertight, transversal watertight	partly
ISO 16750-5	2010-04	Road vehicles - Environmental conditions and testing for electrical and electronic equipment – Part 5: Chemical loads	partly

Marking of product

Example:

Koch Kabel AG – DNV No. TAE00004S1 - YTE - n.p.c. - size - 750 V - Art.nr. XXXXX - week/year - CE - www.kochkabel.ch - RoHS - meter marking

Place of Production

DNV id: 10376706

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