



# DET NORSKE VERITAS

## TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-12827

This is to certify that the  
**Low Voltage Cable**

with type designation(s)  
**Texiline HF90 TW**

Manufactured by  
**AMO Specialkabel AB**  
**ALSTERMO - , Sweden**

is found to comply with  
**Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards**

**IEC 60092-376 (2003-05)**  
**IEC61034-1/2 (2005-04/2005-04)**  
**IEC 60754-1 (2011-11)**

Application  
**Switchboard wires for control and instrumentation (150/250 V)**  
**For use inside cabinets only.**  
**Low halogen**  
**Low smoke**

**Voltage class (V) 150/250 V**  
**Temp. class (°C) 90**

This Certificate is valid until **2017-12-31**.

Issued at **Høvik** on **2013-11-20**

DNV local station: **Fredericia**

Approval Engineer: **Kjersti Bakke**



for **Det Norske Veritas AS**  
Digitally Signed By: Laumann, Marit

Location: DNV Høvik, Norway

Signing Date: 2013-11-20

**Marit Laumann**  
**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.  
If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Certificate No.: E-12827  
 File No.: 827.20  
 Job Id.: 262.1-016295-1

**Product description**

Texiline HF90 TW 150-250 V

Construction Single wire  
 Conductor Plain or tinned stranded copper; class 5  
 Core insulation XLPE

Conductor Cross-section	overall diameter
mm <sup>2</sup>	mm
0,5	1,7
0,75	2,1

**Application/Limitation**

Wire with flexible conductors (IEC 60228 class 5) are to be terminated using approved compression terminals intended and designed for these conductors. For use inside cabinets only.

**Type Approval documentation**

Datasheet Amocable Texline HF 90 TW, with XLPE insulation  
 Type tests see job no 262.1-008708-1 ; same materials different voltage levels.

**Tests carried out**

Standard	Release	General description	Limitation
IEC 60092-350	2008-02	General construction and test methods of power, control and instrumentation cables for shipboard and offshore applications	
IEC 60092-351	2004-04	Insulating materials for shipboard and offshore units, power, control, instrumentation, telecommunication and data cables	
IEC 60092-376	2003-05	Cables for control and instrumentation circuits 150/250 V (300 V)	This is a wire, not a cable.
IEC 60332-1	2004-07	Tests on electric and optical fibre cables under fire conditions – Part 1-1: Test for vertical flame propagation for a single insulated wire or cable – Apparatus	Flame retardant small scale
IEC 60754-1	2011-11	Test on gases evolved during combustion of materials from cables - Part 1: Determination of the halogen acid gas content	Low Halogen: <0,5% Halogen
IEC 61034-1/2	2005-04	Measurement of smoke density of cables burning under defined conditions – Test apparatus, procedure and requirements	Low smoke Light transmittance ≥60%

**Marking of product**

Texiline HF90 TW – size 150/250 V

**Certificate Retention Survey**

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

The main elements of the survey are:

- Inspection on factory samples, selected at random from the production line (where practicable)

Certificate No.: E-12827  
File No.: 827.20  
Job Id.: 262.1-016295-1

- Results from Production Sample Tests (PST) and Routine Tests (RT) checked
- (if RT- and PST-test reports are not available, tests according to PST and RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensure traceability between manufacturer's product type marking and Type Approval Certificate.

Survey shall be performed at least every second year.

END OF CERTIFICATE