DNV·GL

Certificate No:
TAE00001JB

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Fire Protective Systems for Cables

with type designation(s)
Fire Sec FS 5

Issued to
Fire Security AS
KRISTIANSAND S, Norway

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards
Det Norske Veritas' interpretation of SOLAS 1974 Convention as amended
IEC 60332-3-22 (2009-02)

Application :

Approved for use as an ablative fire protective coating on indoor and outdoor cables.

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

This Certificate is valid until **2021-12-30**.

Issued at **Høvik** on **2016-12-31**
DNV GL local station: **Kristiansand S** for **DNV GL**

Approval Engineer: **Ivar Bull**

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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Job Id:
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Product description

"Fire Sec 5"
Ablative fire protective coating for cables.
Coating subliminates and releases water during fire.
Average thickness of coating 1.0mm.

Applications/Limitations

Ablative fire protective coating on indoor and outdoor cables.
The cable or the bunched cables to be coated on all sides.
In enclosed and semi-enclosed spaces cable runs to be coated at least 1 metre in every 14 metres for horizontal runs and to entire length of vertical runs. (IACS SC10 Rev2 2010). Application acording to Fire Security application instructions.

Can be used as permanent repair / lifetime extension of cables with slightly degraded outer sheaths. Repair of cables with heavily degraded outer sheaths may be accepted only after special consideration by DNVGL.

Approval is valid only for coating applied by Fire Security A/S or according to Fire Securities' application instructions.

Can be used to protect cables against mud and IRM903 oil.
Can be used to protect cables against detrimental effects of UV rays and ozone gas.

Compliance with IEC 60331-23:1999 Tests for electric cables under fire conditions - Circuit integrity - Part 23: Procedures and requirements - Electric data cables is accepted for combinations of FS 5 and cables listed below successfully tested for at least 90 minutes:

DNVGL TAC No:	Cable manufacturer and type:	Cable cross sectional area:
E-12533	Nexans MPRXCX 0,6/1 kV. Fire test at 1100C and applied voltage 110/183 V	4 x 1,5mm^2

Type Approval documentation

Marking of product

The product or packing is to be marked with name of manufacturer and type designation.
Protected cables onboard shall be marked: Manufacturer name –Type designation – IEC 60332-3.

Periodical assessment

DNV GL surveyor is to be given permission to perform assessments at any time during the validity period of this certificate. The arrangement is to be in accordance with procedure described in item class programme DNVGL-CP-0338 item 4.

END OF CERTIFICATE