

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Vertically Supported Textile and Film

with type designation(s)
ROLASOLV Sun Protection Systems

Issued to
Solar Solve Marine
South Shields Tyne and Wear, United Kingdom

is found to comply with
DNV GL rules for classification – Ships
DNV GL offshore standards
DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations

Application :

Approved for use throughout the accommodation and public areas as sun protection fabrics.

This certificate is recognized by Transport Canada.

Product approved by this certificate is accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2021-06-29**.

Issued at **Høvik** on **2016-07-25**

DNV GL local station: **Newcastle-upon-Tyne**

Approval Engineer: **Tomasz Werchowicz**

for **DNV GL**



Digitally Signed By: Langnes, Petter
Location: DNV GL Høvik, Norway
Signing Date: 2016-07-26

Petter Langnes
Head of Section

Only valid for official ROLASOLV® products which have been manufactured in the UK

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

"ROLASOLV™ Sun Protection systems"

- Lyverscreen Fabric is a plastified fibreglass composed of 36% fibreglass and 64 % PVC.
- Plasticized Fibreglass composed of 23% fibreglass, 69% PVC and 8% adhesive.
- Polyester Fabric composed of 100% polyester or BANLIGHT DUO 100% polyester fabric.

Application/Limitation

Approved for use as draperies, curtains and other supported textile materials.

Each product is to be supplied with its manual for installation, use and maintenance.

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2015.

Test Reports:

- No. HAF107v2 dated 17 May 2005, from QinetiQ Fire Research & Characterisation, Gosport, UK.
- No. HAF134 dated 25 May 2005 from QinetiQ Fire Research & Characterisation, Gosport, UK.
- No. HAF108v2 dated 17 May 2005 from QinetiQ Fire Research & Characterisation, Gosport, UK.
- No. ICL/H14/3368 dated 4 April 2014 from Interscience Fire Laboratory, Hampshire, UK.

Tests carried out

Tested according to IMO FTPC part 7 and in compliance with IMO 2010 FTP Code Ch. 8, and IMO 2010 FTP Code part 7.

Marking of product

The product or packing is to be marked with name of manufacturer, type designation and fire-technical rating.

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)", DNV GL confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

Periodical assessment

DNV GL's surveyors to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNVGL-CP-0338, Section 4.