



Marine & Offshore
Division

Certificate number: 03414/H0 BV

File number: ACM 135/179/000

Product code: 2104I

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

AMNITEC LIMITED
Merthyr Tydfil - UNITED KINGDOM

for the type of product

NON-METALLIC HOSES (FLEXIBLE PIPES) ASSEMBLIES

Compoflex hoses 0951 Standard duty

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate is a renewal of certificate N° 03414/G0 BV expiring on 10/11/2014

This certificate will expire on: 10 Nov 2019

For BUREAU VERITAS,

At BV LONDON, on 01 Aug 2014,

Jon Watson



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarnb.com/veristarnb/jsp/viewPublicPdfTypec.jsp?id=eawstxhlcM>

BV Mod. Ad.E 530 May 2009

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

Compoflex hoses 0951 Standard duty

1.1 Design

Compoflex hoses are manufactured from multi-layers of thermoplastic films which form a sealing and permeation barrier, supported by fabric layers for mechanical strength. The hose layers are held and tensioned by internal and external steel wire helices. End fittings according to the customer's requirements.

1.2 Technical data

Type	Nominal inner Diameter	Maximum working Pressure	Temperature range	Colour
0951 Standard duty	50 mm / 2"	5 bar	-20 to +80 °C	Grey

1.3 Material specification

Inner wire	Antistatic polypropylene covered steel
Wall material	Polymeric fabrics and films
Outer wire	Galvanised steel

When other choices of materials are used per manufacturer's recommendations, the BV agreement is to be obtained.

2. DOCUMENTS AND DRAWINGS

- Manufacturer's data sheet COMP TDP 102/3/3

No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.

3. TEST REPORTS

Tests carried out according to BV program.

4. APPLICATION / LIMITATION

4.1 May be used for the following services on board: Ballast pipes except for the parts passing through engine rooms, cargo holds and fuel bunkers or located between pumps and their suctions or discharges. Pipes for pumping out small compartments such as chain lockers by means of hand pumps.

4.2 Hoses are not allowed to pass through watertight bulkheads, nor to be used wherever its destruction, in case of fire, would compromise the integrity of subdivision or the ship's safety.

4.3 The hoses are to be limited to a length necessary to provide for relative movement between fixed and flexibly mounted items of machine/equipment or systems and are only to be used in lengths up to 2 m. The hoses are to be installed in clearly visible and readily accessible locations at all times.

4.4 End fittings as per manufacturer's catalogue. The hoses are to be entirely assembled in the manufacturer's workshop.

5. PRODUCTION SURVEY REQUIREMENTS

5.1 The products are to be supplied by **AMNITEC LIMITED** in compliance with the type and the requirements described in this certificate.

5.2 This type of product is within the category IBV of BUREAU VERITAS Rule Note NR320.

5.3 BV product certificate is required.

5.4 The manufacturer has declared to Bureau Veritas that the hoses detailed in this certificate are produced at the following production sites:

- The hose bulks are made by Compoflex Abercarnid Merthyr Tydfil (United Kingdom).

- The flexible hoses are completely assembled by AMNITEC LIMITED Abercarnid Merthyr Tydfil Mid. Glamorgan (United Kingdom).

5.5 Each hose with end fittings is to be hydraulically pressure tested to twice the maximum working pressure and provided with the manufacturer's pressure test report and conformity of production.

6. MARKING OF PRODUCT

Each hose assembly shall be marked with at least:

- Manufacturer name or trademark
- Type designation
- Date of manufacture
- Society's brand as relevant

7. OTHERS

This approval is given on the understanding that the manufacturer will accept full responsibility for informing shipbuilders or their sub-contractors of the proper method of fitting and general maintenance of their products and of the conditions of this approval.

*** END OF CERTIFICATE ***