

**EC-TYPE EXAMINATION
CERTIFICATE (MODULE B)**

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Fire hoses with diameter \leq 52 mm

with type designation(s)
ZYFIRE

Issued to
ZYfire Hose Corporation
Jiangyan, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2015/559,**
Annex A.1, item No. A.1/3.29 and Annex B, Module B in the Directive; SOLAS 74 as amended,
Regulation II-2/10 & X/3 and 2000 HSC Code 7

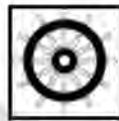
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2022-01-23.**

Issued at **Hamburg** on **2017-01-24**

DNV GL local station:
Nantong CMC

Approval Engineer:
Timo Linn



Notified Body
No.: **0098**



for **DNV GL SE**

Digitally Signed By: Mydlak-Röder, Christine
Location: DNV GL Hamburg, Germany
, on behalf of

Sven Dudzsus
Head of Notified Body

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Product description

Non-percolating lay-flat fire hoses with following specification:

Type „ZYFIRE “:

Non-percolating lay-flat fire hoses:

- | | |
|--------------------------------|--|
| - Jacket Fabric / Textile: | Polyester filament as warp and filler, twill woven |
| - Lining Material: | Synthetic EPDM rubber lining |
| - Diameter: | 40 mm / 52 mm |
| - Max. Working Pressure: | 15 bar |
| - Min. Burst Pressure: | 45 bar |
| - Operating temperature range: | -30°C ~ +85°C |

Application/Limitation

Approved for discharging water from the fire main by using fire hoses (SOLAS II-2/10.2.3 and 2000 HSC Code, 7.7.5).

Type examination documentation

CSI test reports no. 0029\DC\EST\10\01 and no 0029\DC\EST\10\02, each dated 2011-03-31
Product data sheet
Previous GL certificate MED-B 37003-12HH, Ref.-No. 12-006960

Tests carried out

EN 14540 (2004), incl. A.1 (2007)

Marking of product

The products are to be marked according to EN 14540 (2014), section 8 and with the MED Mark of Conformity (wheel mark). This mark shall be followed by our identification number 0098 and by the number of the year in which the mark is affixed. Furthermore, the obligations of manufacturers as defined in Article 12 of Directive 2014/90/EU shall be observed.

**EC-TYPE EXAMINATION
CERTIFICATE (MODULE B)**

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:**That the Fire hoses with diameter \leq 52 mm**with type designation(s)
SINTACT-D

Issued to

**ZYfire Hose Corporation
Jiangyan, China**

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2015/559,****Annex A.1, item No. A.1/3.29 and Annex B, Module B in the Directive; SOLAS 74 as amended,
Regulation II-2/10 & X/3 and 2000 HSC Code 7**

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2022-01-23**.Issued at **Hamburg** on **2017-01-24**DNV GL local station:
Nantong CMCApproval Engineer:
Timo LinnNotified Body
No.: **0098**for **DNV GL SE**

Digitally Signed By: Mydlak-Roder, Christine

Location: DNV GL Hamburg, Germany

, on behalf of

**Sven Dudzsus
Head of Notified Body**

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Product description

Non-percolating lay-flat fire hoses with following specification:

Type „SINTACT-D “:

- | | |
|----------------------------|--|
| - Jacket fabric / textile: | Polyester filament as warp and filler, twill woven |
| - Inside lining: | Synthetic rubber lining (EPDM) |
| - Internal diameter: | 45.5 mm (DN 45) |
| - Min. burst pressure: | 4.5 MPa (45 bar) |

Application/Limitation

Approved for discharging water from the fire main by using fire hoses (SOLAS II-2/10.2.3 and 2000 HSC Code, 7.7.5).

Type examination documentation

CSI test report no. 0023\DC\EST\11 dated 2011-12-06
Manufacturer's data sheets
Previous GL certificate MED-B 36746-11HH, Ref.-No. 11-147638

Tests carried out

EN 14540 (2004), incl. A.1 (2007)

Marking of product

The products are to be marked according to EN 14540 (2014), section 8 and with the MED Mark of Conformity (wheel mark). This mark shall be followed by our identification number 0098 and by the number of the year in which the mark is affixed. Furthermore, the obligations of manufacturers as defined in Article 12 of Directive 2014/90/EU shall be observed.

**QS - CERTIFICATE OF
ASSESSMENT - EC (MODULE D)**

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:**That the Quality System for the products**

with type designation(s) as specified in the Appendix to this Certificate

Issued to

ZYfire Hose Corporation
Jiangyan, China

is found to comply with the applicable requirements.

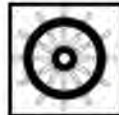
The quality system has been assessed with respect to the procedure of conformity assessment described in Annex II, Module D in the directive 2014/90/EU and regulation (EU) 2015/559.

This Certificate is valid until **2022-01-23**.

Issued at **Hamburg** on **2017-01-24**

DNV GL local station:
Nantong CMC

Approval Engineer:
Timo Linn



Notified Body
No.: **0098**



for **DNV GL SE**

Digitally Signed By: Mydlak-Röder, Christine
Location: DNV GL Hamburg, Germany
on behalf of

Sven Dudzus
Head of Notified Body



0098/yyyy

0098: Notified Body number undertaking quality surveillance
yyyy: The year in which the mark is affixed

The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate authorizes the manufacturer in conjunction with the valid EC Type Examination (Module B) Certificate(s) of the equipment listed before to affix the Mark of Conformity (wheelmark) to the product described herein. This certificate loses its validity if the manufacturer makes any changes to the approved quality system, which have not been notified to, and agreed with the notified body named on this certificate. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. The Manufacturer has to apply for periodical audits to verify the maintenance and application of the quality system every 12 months.



Job Id: **344.1-006273-1**
Certificate No: **MEDD00000W1**

APPENDIX

Item no. A.1/3.29 Fire hoses with diameter <= 52 mm

Type designation	EC Type-Examination Certificate No.	Expiry date	Notified Body No.	USCG approval number
SINTACT-D ¹	MEDB00001YC	2022-01-23	0098	N/A
ZYFIRE ¹	MEDB00001YD	2022-01-23	0098	N/A

Places of production

1. ZYfire Hose Corporation, 88, Kaiyang Road, Jiangyan, China