



Marine & Offshore

Certificate number: 63230/A0 BV

File number: ACM 135/2210/11

Product code: 2080H

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

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Viega GmbH & Co. KG

Attendorn - GERMANY

for the type of product

THERMOPLASTIC MATERIAL PIPES AND FITTINGS

Raxofix multilayer composite pipes PE-RT/Al/PE-RT and silicon bronze metal press fittings

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships

BUREAU VERITAS Rules for the Classification of Yachts

FTP Code Resolution MSC.61(67)

IMO Resolution A.753(18)

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 09 Feb 2026

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 09 Feb 2021,

Adama Diene



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 Marine & Offshore. 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 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 Marine & Offshore 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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Raxofix multi-layer composite pipes and metallic press fittings according manufacturer's catalogue.

1.1 Technical data:

Size	DN 12	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50
Nominal internal pressure	PN 16	PN 16	PN 16	PN 16	PN 16	PN 12.5	PN 12.5
Outside diameter [mm]	16	20	25	32	40	50	63
Wall thickness [mm]	2.2	2.8	2.7	3.2	3.5	4.0	4.5
Max. operating pressure [bar]	10	10	10	10	10	10	10
Nominal external pressure rating [bar]	up to 4	up to 4	up to 4	up to 4	up to 4	up to 4	up to 4
Max. operating temperature for drinking water installations [°C] *	70	70	70	70	70	70	70
Max. operating temperature for heating installations [°C] *	80	80	80	80	80	80	80

* according to ISO 21003

1.2 Materials:

Pipe	PE-RT/Al/PE-RT
Fittings	Silicon bronze: CC 246E / CuSi4Zn9MnP

2. DOCUMENTS AND DRAWINGS:

According to following documents:

Designation	Dokument no.	Rev.
Manufacturer's catalogue: Raxofix Rohrleitungstechnik	L3_DE_de 20201102_112114_1	02.11.2020
Instructions for Use Raxofix	VPN200370	2020-10

3. TEST REPORTS:

- 3.1 Test report no.: 213035/20-III at SKZ – Testing GmbH, Würzburg / GERMANY, dd. 2021-01-07.
- 3.2 Test report no.: 191101052-1 at Kiwa Nederland B.V., Rijswijk / NETHERLANDS, dd. 8-1-2021.
- 3.3 Test report no.: V189/20 at IMA Materialforschung und Anwendungstechnik GmbH, Dresden / GERMANY, dd. 20th July 2020.

4. APPLICATION / LIMITATION:

- 4.1 The pipes and fittings are approved for use in locations according to Pt C, Ch 1, App 3 of BUREAU VERITAS Rules or appendix 4 of IMO Resolution A.753 (18) when the abbreviations "O or NA" are specified:
- Fresh water: non-essential systems, potable water generating and treatment systems, potable hot and cold water / wash water systems, cooling and heating system of air condition systems
 - Sanitary, drains and scuppers: condensate return from air condition systems
 - Miscellaneous: service air (non-essential)
- 4.2 The pipes and fittings are tested for flame spread according to ASTM D635: HB.
- 4.3 On board installation is to be as per BUREAU VERITAS Rules requirements and manufacturer's recommendations.
- 4.4 Detailed drawings of piping system for each application on board ships are to be submitted for review of compliance with the BUREAU VERITAS Rules and the applicable regulations.
- 4.5 The pipes and fittings assembly is to be carried out in accordance with the manufacturer's instructions and the person performing these tasks is to be qualified to the satisfaction of the Society Surveyor.

- 4.6 The integrity of watertight bulkheads and fire division is not to be impaired.
- 4.7 Behaviour in case of fire (smoke generation and toxicity) is to be deemed satisfactory by the flag authorities of the vessel on board which the piping system is fitted.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The pipes and fittings are to be supplied by **Viega GmbH & Co. KG** in compliance with the type described in this certificate.
- 5.2 This type of product is within the category HBV of BUREAU VERITAS Rule Note NR320 and as such does not require a BUREAU VERITAS product certificate.
- 5.3 **Viega GmbH & Co. KG** has to make the necessary arrangements to have its works recognised by BUREAU VERITAS in compliance with the requirements of NR320 for HBV products.
- 5.4 For information, **Viega GmbH & Co. KG** has declared to BUREAU VERITAS the following production sites:
Pipes:
Viega GmbH & Co. KG, Niederwinkling / GERMANY
Becker Plastics GmbH, Datteln / GERMANY
Fittings:
Viega GmbH & Co. KG, Attendorn / GERMANY

6. MARKING OF PRODUCT:

Each pipe and fitting shall be marked with at least:

- Manufacturer's name or logo
- Type and size of the product
- Nominal pressure

The permanent label for the product shall remain legible under normal handling and installation practices.

7. OTHERS:

- 7.1 It is **Viega GmbH & Co. KG**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

*** END OF CERTIFICATE ***