



CERTIFICATE

KOMO®

Technical approval-with-product certificate
K110239/01

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Valid until Indefinite Dated
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Pipes and fittings made of glass reinforced polyester for drainage and sewerage without pressure – Continous filament winding - Subor CFW piping system

Subor Boru San. Tic. A.Ş.

STATEMENT BY KIWA

This technical approval-with-product-certificate is issued on the basis of Assessment Directive/BRL 52204 "Plastic piping systems for drainage and sewerage with or without pressure – glass reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP)" dated 8 June 2023, in accordance with the Kiwa Regulations for Product Certification.

The quality system and the product characteristics belonging to the Subor CFW piping system are checked periodically and the performance of these products in its application is assessed. The basic principles for the assessment are checked periodically.

On this basis Kiwa declares that:

- a justified confidence exists, that the Subor CFW piping system as delivered by the certificate holder complies with:
 - the technical specification as laid down in this technical approval-with-product-certificate;
 - the product requirements as laid down in this technical approval-with-product-certificate and in the BRL; provided the products have been marked with the KOMO®-mark in a manner as indicated in this technical approval-with-product-certificate;
- the Subor CFW piping system provide the performances as described in this technical approval-with-product certificate, provided that:
 - the application conditions and the technical specifications as laid down in this technical approval-with-product certificate are met;
 - the manufacturing is in accordance with the regulations and processing methods as laid down in this technical approval-with-product-certificate.

Within the framework of this technical approval-with-product-certificate Kiwa does not impose any inspections with regard to the production of other parts of the Subor CFW piping system, nor the manufacturing of the Subor CFW piping system itself.

Ron Scheepers
Kiwa

474200612

This technical approval-with-product certificate is also included on the KOMO foundation websites: www.komo.nl and www.komo-online.nl.

Users of this technical approval-with-product certificate is advised to check whether it is still valid. For this purpose consult the website of Kiwa: www.kiwa.nl.

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Assessed is:

- Quality system
- Product
- Performance in the application

 Periodic control

Pipes and fittings made of glass-reinforced polyester for draining and sewerage without pressure – Continous filament winding - Subor CFW piping system

TECHNICAL SPECIFICATION

This technical approval-with-product certificate relates to the Subor CFW piping system intended for drainage and sewerage according to Assessment Directive/BRL 52204 "Plastics piping systems for drainage and sewerage with or without pressure – glass reinforced thermosetting plastics (GRP) based on unsaturated polyester resin (UP) dated 2023-08-06".

The Subor CFW piping system consists of the following parts:

- Pipes, fittings incuding couplings and joints;
- The couplings consist of a GRP sleeve with a permanently fitted, full width EPDM gasket seal.

The Subor CFW piping system is designed for uniaxial use (without hydrostatic end thrust) and suitable for the conveyance of drainage (surface) or sewerage water at temperatures up to 35 °C.

Pressure class (PN)

Non-pressure (PN 1).

Nominal diameter range (DN)

DN200 up to and including DN4000, according to manufacturer's list.

Stiffness class (SN)

2.500 and 1.000.000

MARKINGS AND INDICATIONS

The products are marked with the KOMO®-logotype or KOMO®-word mark.

The KOMO® logo type shall be applied as follows:



The following markings and indications are applicable for the different products.

Pipes

Marking details shall be printed or formed directly on the pipes in such a way that the marking does not initiate cracks or other types of failure. If printing is used, the colouring of the printed information shall differ from the basic colouring of the product and such that the markings shall be readable without magnification.

The following marking details shall be on the outside of each pipe, and in the case of pipes of DN 600 or greater shall be either on the inside or on the outside surface:

- Number of this Assessment Directive or applicable standard,: "BRL 52204" or "EN-ISO 23856";
- Nominal size DN and diameter series: "B1"or "B2";
- Stiffness rating;
- Pressure rating;
- Manufacturer's name or identification;
- Date or code of manufacture;
- Certificate number;
- Quality mark: KOMO® logotype or KOMO® word mark.

Note: Pipe is supplied by the factory with a coupling installed on one end. Pipe and coupling may also be supplied separately upon request.

Couplings

Marking details shall be printed or formed directly on the fitting in such a way that the marking does not initiate cracks or other types of failure. If printing is used, the colouring of the printed information shall differ from the basic colouring of the product and such that the markings shall be readable without magnification.



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The following marking shall be on the outside of each coupling:

- Number of this Assessment Directive or applicable standard,: "BRL 52204" or "EN-ISO 23856";
- Nominal size DN and diameter series: "B1" or "B2";
- Pressure rating;
- Manufacturer's name or identification;
- Date or code of manufacture;
- Certificate number;
- Quality mark: KOMO® logotype or KOMO® word mark.

Fittings

Marking details shall be printed or formed directly on the fitting in such a way that the marking does not initiate cracks or other types of failure. If printing is used, the colouring of the printed information shall differ from the basic colouring of the product and such that the markings shall be readable without magnification.

The following marking shall be on the outside of each fitting:

- Number of this Assessment Directive or applicable standard,: "BRL 52204" or "EN-ISO 23856";
- Nominal size DN and diameter series: "B1 or B2";
- For bends, branches or saddles, the designated fitting angle;
- For reducers nominal sizes DN1 and DN2;
- Stiffness rating;
- Pressure rating;
- Joint type: "flexible joint" or "bolted flange joint" and "non end-load-bearing";
- Manufacturer's name or identification;
- Date or code of manufacture;
- Certificate number;
- Quality mark: KOMO® logotype or KOMO® word mark.

PERFORMANCES IN THE APPLICATION

The minimum lifetime of the Subor CFW piping system is 50 years.

The applicable nominal pressures and stiffnesses (see technical specification) are suitable for the conveyance of drainage (surface) or sewerage water at temperatures up to 35 °C.

PRODUCT CHARACTERISTICS

The following jointing technique is used within the Subor CFW piping system.

- Flexible non-end-load-bearing joints with elastomeric sealing rings;
- Non-flexible non-end-load-bearing joints with bolted flange joints.

INSTALLATION INSTRUCTIONS

The supplier shall provide installation instructions, approved by Kiwa Nederland B.V. A reference to these instructions shall be made at or near the packaging. The instructions are published in the Dutch or English language and contains at least specific information with regard to storage, transport, processing temperature and construction of the joints. The installation instruction shall also include specific information regarding the putting into use as well as being in use of the Subor CFW piping system.

TIPS FOR THE USER

Check on delivery of the products listed under the "technical specification" whether:

- The product(s) and material(s) ordered are delivered in accordance with the agreement you made;
- The brand and the method of marking is correct;
- No defects or damage is visible (for example, resulting from the transportation).

If on the basis of the foregoing you decide to proceed to rejection, please contact:

- Subor Boru San. Tic. A.Ş.;

And if necessary,

- Kiwa Nederland B.V.

Carry out the storage, transport and processing in accordance with the provisions included in this product certificate as well as with the above mentioned installation instructions of the certificate holder.

