

KOMO[®]

technical approval-with-product certificate

kiwa

Partner for progress



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Issued	2006-11-01	Dated	--
Valid till	Indefinite	Page	1 of 3

Flexible pre-insulated piping system (Werkmäßig gedämmte flexible Rohrsysteme)

Uponor GmbH

STATEMENT BY KIWA

This technical approval-with-product certificate is issued on the basis of BRL 5609 part A "Flexible piping systems with plastics medium pipe for warm water distribution", dated 2004-04-21, in accordance with the Kiwa Regulations for Product Certification.

Kiwa declares that legitimate confidence exists that:

- the by the producer manufactured products comply with the technical specifications as laid down in this technical approval-with-product certificate, provided that they have been marked with the KOMO[®]-mark reproduced below in the manner indicated in this technical approval-with-product certificate.;
- the with the certified products composed flexible piping systems with plastics medium pipe for warm water distribution fulfill the performance requirements as laid down in this technical approval-with-product certificate, provided that:
 - the manufacturing of flexible piping systems with plastics medium pipe for warm water distribution takes place in accordance with the processing methods as laid down in this technical approval-with-product certificate;
 - the application conditions as described in this technical approval-with-product certificate are complied with.

Within the framework of this technical approval-with-product certificate, Kiwa does not impose any inspections with regard to the production of other components of the heated water distribution system, nor the manufacturing of the construction part itself.

ing. B. Meekma

director Certification and Inspection, Kiwa N.V.

Advise: consult www.kiwa.nl in order to ensure that this certificate is still valid.

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Evaluated is:
quality system
product
performance product
as applied
Periodic inspection

ECOFLEX SYSTEM

PRODUCT SPECIFICATION

General

Flexible piping systems with plastics inner pipe for heated water distribution according to BRL5609. The piping system exists of the following parts:

- ◆ a piping package existing of:
 - PE-X medium carrying pipes provided with an oxygen barrier layer (colour: white)
 - Dog bone from PE-X foam (only for twin pipe system)
 - PE-X isolation layer around the medium carrying pipe
 - HDPE corrugated outer casing pipe around the isolation layer (colour: black)
- ◆ mechanical fittings, Quick&Easy (Sörberg) and Wipex (Uponor AB)
- ◆ products to couple the piping package with a supply-pipe

Detailed specification

The combinations of medium carrying pipe(s) and corrugated outer casing pipes as mentioned in the table below belong to this technical approval-with-product certificate.

Nominal inner pipe-diameter x wall thickness in mm	Nominal diameter ducting pipe in mm
16 x 2,0 50 x 4,6	140
20 x 2,0 63 x 5,8	175
25 x 2,3 75 x 6,8	200
32 x 2,9 90 x 8,2	
40 x 3,7 110 x 10,0	

The piping package may be delivered with one medium carrying pipe (single-pipe) or two (twin-pipe) medium carrying pipes. The joints for the medium carrying pipe (metal fittings) are made with special tools.

The producer declares for each system type (combination medium carrying pipe/outer casing pipe) the loss of heat per meter, calculated according to annex 6 of BRL 5609 part A.

Marking

The products are marked with the KOMO[®]-mark.

The inner pipes are provided with the following marks:

- ◆ word mark KOMO[®];
- ◆ manufacturer's name, trade name or logo;
- ◆ material: PE-X;
- ◆ class DH1;
- ◆ design pressure: 6 bar;
- ◆ nominal outside diameter and nominal wall thickness in mm;
- ◆ production code;
- ◆ system name or logo.

The realization of these marks is as follows: clear and non-erasable at intervals of not more than 2 m.

The fittings are provided with the following marks:

- ◆ word mark "KOMO[®]";
- ◆ manufacturer's name, registered trade mark or logo;
- ◆ nominal outside diameter and wall thickness of accompanying inner pipe;
- ◆ production code;
- ◆ name of the system how it is put on the market*.

The realization of the marks is as follows: clear and indelible on each fitting*.

* If desired, the system name may be provided on the packaging. In case the system name is mentioned on the fittings in full, the trade name may be indicated as a code or vignette.

ECOFLEX SYSTEM

The ducting pipes are provided with the following marks:

- ◆ word mark KOMO[®] or logo;
- ◆ manufacturer's name, trade name or system name;
- ◆ material indication inner pipe: PE-X;
- ◆ class DH1;
- ◆ design pressure: 6 bar;
- ◆ nominal outside diameter of the ducting pipe in mm;
- ◆ number of inner pipes with nominal outside diameter and wall thickness in mm;
- ◆ production code.

The realization of these marks is as follows: clear and non-erasable at intervals of not more than 2 m.

PERFORMANCES

The system must be sufficiently oxygen tight. All joints must be leak tight and possess sufficient clamp force to resist external influences. For all parts of the system applies that they are designed for a lifetime of 30 years (class DH1).

PROCESSING

The supplier shall provide installation instructions. A reference to these instructions shall be made at or near the packaging. The instructions must contain specific information with regard to storage, transport, processing temperature and construction of the joints.

RECOMMENDATIONS FOR USERS

Inspect at the time of delivery of the products as mentioned under "technical specification" whether:

- the products are in accordance with the agreement;
- the mark and marking method are correct;
- the products show no visible defects as a result of e.g. transport.

Inspect at the time of delivery of the products as mentioned under "processing" whether they fulfill the applicable specifications.

If you should reject a product on the basis of the above, please contact:

- Uponor GmbH
and, if necessary:
- Kiwa N.V.

Carry out the storage, transport and the processing of the products according to the regulations as mentioned under "processing". Take into account the application conditions as mentioned under "performances".

Check whether this certificate is still valid by consulting the Kiwa website: www.kiwa.nl.
