



**KOMO<sup>®</sup>**  
 technical approval-with-product certificate  
**K23905/06**



Issued 2017-08-15 Replaces K23905/05  
 Valid until Indefinite Dated 2015-02-01  
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**FLEXOLEN system**  
**hpg plastics gmbh**

**STATEMENT OF KIWA**

This technical approval-with-product certificate on the basis of BRL 5602 Plastics piping systems of PE-RT intended for floor heating issued on 25 October 2016 by Kiwa, in accordance with the Kiwa regulations for product certification.

The quality system and the product characteristics belonging to the FLEXOLEN system are checked periodically and the performance of the FLEXOLEN system in the application as floor heating is assessed. The basic principles for the assessment are checked periodically.

Based on this Kiwa declares that :

- legitimate confidence exists that the by the holder of the technical approval- with-product certificate delivered FLEXOLEN system comply with:
  - the technical specifications as laid down in this technical approval-with-product certificate;
  - the product requirements as laid down in this technical approval-with-product certificate ,
 provided that the FLEXOLEN system has been marked with the KOMO<sup>®</sup>-mark in the manner as indicated in this technical approval-with-product certificate;
- the FLEXOLEN system provides the performances as described in this KOMO technical approval-with-product certificate, provided that:
  - the application conditions and technical specifications as described in this KOMO approval-with-product certificate are met;
  - the manufacturing takes place according to the processing methods as laid down in this technical approval-with-product certificate.

Within the framework of this KOMO technical approval-with-product certificate there is no inspections with regard to the production of other parts of the FLEXOLEN system or the processing of the FLEXOLEN system.

Luc Leroy  
 Kiwa

*The certificate is listed in the overview on the website of Stichting KOMO: [www.komo.nl](http://www.komo.nl).  
 Advice: consult [www.kiwa.nl](http://www.kiwa.nl) in order to ensure that this certificate is still valid.*

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Evaluated is:  
 Quality system  
 Product  
 Performance in  
 application  
 Periodic inspection

**CERTIFICATE**

474170526

## FLEXOLEN system

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### TECHNICAL SPECIFICATION

#### Subject

FLEXOLEN system

#### Product characteristics

The product complies to BRL 5602 Plastics piping systems of PE-RT intended for floor heating.

The system consists of:

- 3- and 5- layer PE-RT type 0 pipes provided with a plastics (EVOH) barrier layer manufactured by hpg plastics gmbh (certificate K23904);
- Metal press and compression fittings manufactured by IPA Produktions- & Vertriebsges.m.b.H (certificate K11612).

#### Specification

The dimensions of the pipe in the table below are part of this certificate.

Nominal outside diameter (mm)	Wall thickness (mm)
12 <sup>1)</sup>	2,0 <sup>1)</sup>
14	2,0
16	2,0
17	2,0
18	2,0
20	2,0

<sup>1)</sup> Only with compression fittings

Colour: blue, yellow, green, opal, red, silver, white, black.

#### Marking

The products shall be marked with the KOMO<sup>®</sup> mark.

#### Pipes

The minimum required marking on the pipes shall be:

- KOMO (or KOMO<sup>®</sup> word mark) + class 4/ 6 bar;
- certificate number of accompanying technical approval-with-product certificate of the piping system;
- the manufacturer's name, trade name, system name or logo;
- material identification: PE-RT type 0,
- the build up of the pipe; PE-RT/EVOH or PE-RT/EVOH/PE-RT;
- nominal outside diameter and nominal wall thickness of the pipe in mm;
- production code.

The realization of the marks is as follows: clearly, durable and indelible at intervals of not more than 2 m.

#### Fittings

The minimum required marking on the fittings shall be:

- KOMO (if not possible KOMO only on the smallest packaging);
- the manufacturer's name, trade name or logo;
- nominal outside diameter of the corresponding pipe;
- production code.

Location of the marks: on every fitting.

The realization of the marks is as follows: clearly, durable and indelible.



## FLEXOLEN system

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The minimum required marking on the smallest packaging unit of the fittings shall be:

- KOMO (or KOMO<sup>®</sup> word mark);
- certificate number of the accompanying technical approval-with-product certificate of the piping system, according the marking of the belonging pipe;
- the manufacturer's name, trade name, system name or logo;
- material identification if the fitting body is made of plastics;
- nominal outside diameter and nominal wall thickness of the corresponding pipe in mm.

Location of the marks: on every package.

The realization of the marks is as follows: clearly and indelible on every packaging.

### Logistics

Production and assembly of the system is laid down in the annex of the certification agreement.

### PROCESSING

The supplier shall provide installation instructions, approved by Kiwa. A reference to these instructions shall be made at or near the packaging. The instructions are published in the Dutch language and contains at least specific information with regard to storage, transport, processing temperature and construction of the joints.

So-called "combination boilers" are often applied in individual house heating systems. In such boilers, no double separation between drinking water and heating medium exists. A leak in the single separation may result in the heating medium coming into contact with drinking water. Because of this it is important that in case additives are added to the heating medium a Kiwa product certificate for these additives has been issued.

The heat emission to the floor is dependent on the thickness of the finishing coat and the mutual distance between the pipes. The preconditions have to be clearly described in the instructions.

### PERFORMANCES

1. The system is oxygen tight.
2. All joints are leak tight and possess sufficient clamp force to resist external influences.

### PERFORMANCES OF THE PRODUCTS

All system components are designed for a lifetime of 50 years at an operating temperature profile according to class 4 of NEN-ISO 10508 and an allowable working pressure of maximum 6 bar.

### RECOMMENDATION FOR THE CUSTOMER

Check at the time of delivery whether:

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

Examine at delivery of the products mentioned under "processing" that they comply to the mentioned specifications.

if you should reject a delivery on the basis of the above, please contact:

- hpg plastics gmbh

and, if necessary:

- Kiwa Nederland B.V.

For the proper storage, transport and processing follow the instructions given under "processing".

Take notice of the application conditions given under "Performances in application".

