

KOMO®

technical approval-with-product certificate



Number	K84463/04	Replaces	K84463/03
Issued	2017-02-15	Dated	2016-04-01
Valid until	Indefinite	Page	1 of 4

<MIDI> inverse system

hpg plastics gmbh

STATEMENT OF KIWA

This technical approval-with-product certificate on the basis of BRL 5607 Plastics piping systems of PE-RT intended for heating installations: radiator connections 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 <MIDI> inverse system are checked periodically and the performance of the <MIDI> inverse system in the application as radiator connections 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 <MIDI> inverse 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 <MIDI> inverse system has been marked the <MIDI> inverse system with the KOMO®-mark in the manner as indicated in this technical approval-with-product certificate;
- the <MIDI> inverse 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 are no inspections with regard to the production of other parts of the <MIDI> inverse system or the processing of the <MIDI> inverse system.

Luc Leroy
Kiwa

The certificate is listed in the overview on the website of Stichting KOMO: www.komo.nl.
Advice: consult www.kiwa.nl in order to ensure that this certificate is still valid.

Holder of Certificate

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Evaluated is:
Quality system
Product in application
Periodic inspection

<MIDI> inverse system

TECHNICAL SPECIFICATION

Subject

<MIDI> inverse system

Product characteristics

The product complies to BRL 5607 Plastic piping systems of PE-RT intended for heating installations: radiator connections.

The system consists of:

- 5 layer PE-RT pipes provided with a plastic (EVOH) barrier manufactured by hpg plastics gmbh (certificate K13788);
- Mechanical metal press and compression fittings manufactured by IPA (certificate K11612);
- Mechanical plastic pushfit fittings (15 x 1.7 mm) manufactured by John Guest (certificate K20907);
- Protection pipes manufactured by Maincor (certificate K11408);
- Protection pipes manufactured by Hegler Plastiks (certificate K13791).

Specification

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

Class 5: Max. 4 bar		Class 5: Max. 6 bar		Class 4: Max. 6 bar		Class 4: Max. 10 bar ¹⁾ PE-RT type 2 5-layer pipe	
Nominal outside Diameter (mm)	Wall thickness (mm)	Nominal outside Diameter (mm)	Wall thickness (mm)	Nominal outside Diameter (mm)	Wall thickness (mm)	Nominal outside Diameter (mm)	Wall thickness (mm)
10	1,3	10	1,3	10	1,3	10	1,6
15 ²⁾	1,7 ²⁾	12 ³⁾	2,0 ³⁾	12 ³⁾	2,0 ³⁾	12	2,0
20	2,0	14	2,0	14	2,0	14	2,0
32 ⁴⁾	3,0 ⁴⁾	16	2,0	15 ²⁾	1,7 ²⁾	15	2,5
		17	2,0	16	2,0	16	2,2
		18	2,0	17	2,0	18	2,5
		20 ¹⁾	2,0 ¹⁾	18	2,0	20	2,8
		26	3,0	20	2,0	22 ⁴⁾	3,0
				26	3,0	25	3,5
				32 ⁴⁾	3,0 ⁴⁾	26 ⁴⁾	3,5
						28 ⁴⁾	4,0
						32 ⁴⁾	4,4

¹⁾ only for PE-RT type 2

²⁾ only for PE-RT type 1

³⁾ only with compression fittings

⁴⁾ only with press fittings

Colour: blue, yellow, green, opal, red, silver, white, black, orange, pink, grey

Remarks: the piping system can also be used as floor heating system according BRL 5602

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Marking

The products shall be marked with the KOMO[®] mark.

Pipes

The minimum required marking on the pipes shall be:

- KOMO (or KOMO[®] word mark) + class 4 or 5 / 4, 6 or 10 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 1 or PE-RT type 2;
- 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 meters.

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.

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

- KOMO (or KOMO[®] 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, durable and indelible on every packaging.

Protection pipes

The minimum required marking on the protection pipes shall be:

- KOMO (or KOMO[®] word mark);
- certificate number of the protection pipe;
- the manufacturer's name, trade name or logo.

The realization of the marks is as follows: clearly and indelible at intervals of not more than 2,5 m.

Logistics

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

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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 must be designed for a lifetime of 50 years at an operating temperature profile according to class 4 and 5 of NEN-ISO 10508 and an allowable working pressure of maximum 4, 6 and 10 bar.

The protection pipes have to protect the medium pipes for radiator connections in case the medium pipes are embedded.

RECOMMENDATIONS FOR USERS

Check at the time of delivery whether:

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

Examine by delivery if the under "processing" mentioned products satisfy to this mentioned specifications.

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

- hpg plastics gmbh
- and, if necessary:
- Kiwa Nederland B.V.

Consult the installation instructions of the producer for the correct way of storage, transport and processing of the products.

Take the application conditions mentioned under "performances" in consideration.