# Plastics Piping Systems intended for Heating inside Buildings

## Introduction

The certification with the KOMO mark is based on piping systems, i.e. pipes and fittings assembled together. This means that for these systems it is not possible to certify a pipe or fitting on it's own. The plastics piping systems are certified for 50 year life expectancy. For heating there are two applications:

- floor heating, class 4 at 4 or 6 bar
- radiator connections, class 5 at 6 bar

## **Application**

For the application we need the following information about your product:

kiwa

- Type of plastics; (PE/PB/PE-X/PE-RT/...);
- Supplier of the plastics;
- ISO 9080 data of the used plastics (50 year life expectancy);
- Drawings of the build up of the pipe/ fittings;
- Dimensions of the pipe/fitting;
- Production location of the pipe /fitting/piping system.

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	Class 4		Class 5	
	Temperature [°C]	Lifetime during 50 years	Temperature [°C]	Lifetime during 50 years
T cold	20	2,5 years	20	14 years
T design	40	20 years	60	25 years
	+	+	+	+
	60	25 years	80	10 years
T max.	70	2,5 years	90	1 year
T malfunction	100	100 hours	100	100 hours

If a piping system is certified for radiator connection it will be also certified for floor heating.

The requirements to obtain and maintain the Kiwa mark are established in the evaluation guidelines (BRL) per type of plastics:

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BRL 5601	PE	floor heating
BRL 5602	PE-RT	floor heating
BRL 5603	PE-X	floor heating
BRL 5604	PB	floor heating
BRL 5612	PP	floor heating
BRL 5605	PB	radiator connections
BRL 5606	PE-X	radiator connections
BRL 5607	PE-RT	radiator connections
BRL 5610	PE-X / AI	radiator connections
BRL 5611	PE-RT / AI	radiator connections

## Initial inspection visit

An auditor will visit your company and take the test samples. He will audit the quality system to secure that the products can be produced with a constant quality. The production control data will be registered in an Internal Quality Schedule (IQS).

#### Type testing

The test program for mechanical tests is described in the BRL and in an internal guideline. The requirements are based on national- or preferably international product standards.

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For the application we can accept test reports of identical tests, carried out by laboratories that are accredited according to EN-ISO/IEC 17025 and recognized by Kiwa. Please send the test reports along with the application.

## **Certification**

When the initial inspection visit and the type testing are finished with a good result the certificate will be issued. From a half year onward, the inspection visits will start.

## Inspection visits

The inspector will visit the company four times a year. When the company has an ISO 9001 certificate the frequency will be lowered to two times a year. Each year samples will be taken for examination at the KIWA laboratory.

## **Certificate**

The certificate contains information of the product which are covered by the certificate, next to the logistic information and the contract for maintaining the certificate.

## Private label

For an importer of plastics piping system, it is possible to have a copy of the certificate from the original producer on your own name. For this the original producer needs to grand permission. Also, the brand name of the product can be changed in the new private label certificate.

## One Stop Shopping

Kiwa offers you the service of dealing with certification/testing for other countries and Quality marks. When you are interested in this service, please contact us with your specific request.

## More information:

Floor heating PE:

https://www.kiwa.com/en/service/brl-5601-plastic-pipingsystem-of-pe/

### Floor heating PE-RT:

https://www.kiwa.com/en/service/brl-5602-plasticspiping-systems-of-pe-rt-intended-for-underfloor-heating/ Floor heating PE-X:

https://www.kiwa.com/en/service/brl-5603-plasticspiping-systems-of-pe-x-intended-for-underfloor-heating/ Floor heating PB:

### https://www.kiwa.com/en/service/brl-5604-pb-plasticspiping-systems-heating/

## Floor heating PP:

https://www.kiwa.com/en/service/brl-5612-plasticspiping-systems-of-pp-underfloor-heating/

### Radiator PB:

https://www.kiwa.com/en/service/brl-5605-plasticspiping-systems-of-pb-intended-for-heating-installationsradiatorconnections/

## Radiator PE-X:

https://www.kiwa.com/en/service/brl-5606-plasticspiping-systems-of-pe-x-intended-for-heating-installationsradiator-connections/

## Radiator PE-RT:

https://www.kiwa.com/en/service/brl-5607-plasticspiping-systems-of-pe-rt-intended-for-heating-installationsradiator-connections/

## Radiator PE-X/AI:

https://www.kiwa.com/en/service/brl-5610-plasticspiping-systems-of-pe-x-al-intended-for-heatinginstallations-radiator-connections/

## Radiator PE-RT/AI:

https://www.kiwa.com/en/service/brl-5611-plasticspiping-systems-of-pe-rt-al-intended-for-heating-

installations-radiator-connections/

or visit our website at: www.kiwa.com

For questions, more information or a quotation for this certification, please contact:

## e-mail: Hot-Cold@kiwa.nl

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