

Plastics Piping Systems intended for Heating inside Building



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 its own** (outside of the system).

The plastics piping systems are certified for a 50 years life expectancy. For heating systems there are two applications:

- floor heating, **class 4** at 4 or 6 bar;¹
- radiator connections, **class 5** at 6 or 8 bar.²

Application

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

- Type of plastics (PVC-C/PP-R/PB/PE-X/ PE-RT/... etc.);
- Supplier(s) of the plastics;
- ISO 9080 data of the used plastics (50 year life expectancy);
- Dimensions of the pipe/ fitting;
- Drawings of the buildup of the pipe/ fittings;
- Production location of the pipe/ fitting/ piping system.

Table 1: Temperature profile during 50 years according ISO 10508:2006/A1:2018.

Temperature profile		Class 4		Class 5	
		Temperature [°C]	Life time during 50 years	Temperature [°C]	Life time during 50 years
T _D	(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 (class 5) it will also be certified for floor heating (class 4).

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

BRL 6300	all materials	general requirements;
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/Al	radiator connections;
BRL 5611	PE-RT/Al	radiator connections;
BRL 5613	metal inner layer	radiator connections;
BRL K17701	all materials	manifolds. ³

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.

Test reports of third parties

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.

¹ Overpressure of 10 bar is allowed in the following evaluation guidelines - BRL 5603.

² Overpressure of 10 bar is allowed in the following evaluation guidelines - BRL 5606, 5607, 5610, 5611 and 5613.

³ In evaluation guideline BRL K17701 the applicable overpressure is 3, 6 or 10 bar for both class 4 and 5.

Kiwa Nederland B.V.

Sir Winston Churchilllaan 273

Postbus 70

2280 AB RIJSWIJK

Tel.: +31 88 998 44 00

E-mail: info@kiwa.nl

Plastics Piping Systems intended for Heating inside Building



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 later, 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 testing at the KIWA laboratory.

Certificate

You will be issued a certificate containing information of the products covered by the certificate, an annex with the logistical information and the contract for maintaining the certificate. Also, regarding drinking water, a confidential part is issued which contains the Hygienic Aspects (HA) information.

Private label

For an importer of a plastics piping system it is possible to have a copy of the certificate from the original producer on their own name. For this the original producer needs to grant 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:

For links to all KOMO evaluation guidelines visit: [KOMO Certification and Testing for Plastic Piping Systems Inside Buildings for Heating Systems](#).

For a quotation, please, fill in the online application form: [Plastics piping system for heating and/or drinking water](#).

For general information visit our website: www.kiwa.com.

For questions or more specific information about this certification, please, contact:

e-mail: nl.hot-cold@kiwa.com.

Kiwa Nederland B.V.

Sir Winston Churchilllaan 273

Postbus 70

2280 AB RIJSWIJK

Tel.: +31 88 998 44 00

E-mail: info@kiwa.nl