



Technical-approval-with-product certificate K101113/02

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Replaces K101113/01

Page 1 of 4

Tigris M1/M5 system

STATEMENT BY KIWA

With this technical-approval-with-product certificate, issued in accordance with the Kiwa Regulations for Certification, Kiwa declares that legitimate confidence exists that the products supplied by

Wavin Nederland B.V.

as specified in this technical-approval-with-product certificate and marked with the Kiwa®-mark in the manner as indicated in this product certificate may, on delivery, be relied upon to comply with Kiwa evaluation guideline BRL-K536 K "for the Kiwa technical-approval-with product certificate for multilayer piping systems PE-X /AI, PE-RT/AI, PP-R/AI and PP-RCT/AI intended for transport of hot and cold drinking water inside buildings" dated 15-11-2017.

Within the framework of this technical-approval-with-product certificate Kiwa does not impose any inspections with regard to the production of other parts of the Tigris M1/M5 system nor the processing of the Tigris M1/M5 system itself.

Ron Scheepers
Kiwa

Publication of this certificate is allowed.

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

CERTIFICATE

284/190610

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Certification process
consists of initial and
regular assessment of:

- quality system
- product

Tigris M1/M5 system

PRODUCT SPECIFICATION

The product complies to BRL K536-K multilayer piping systems PE-X/Al, PE-RT/Al, PP-R/Al and PP-RCT/Al intended for transport of hot and cold drinking water inside buildings and the "Product Evaluation Guideline W 001 Multilayer Piping Systems 2018-02-08" (PEG).

The system consists of:

- PE-X/Al/PE pipes, produced by Multilayer Pipe Company Sp. Z.o.o. (certificate K25071);
- PE-RT/Al/PE-RT pipes produced by WRW Westfälische Rohrwerke GmbH (certificate K42738);
- Metal press fittings produced by Wavin Nederland B.V. (certificate K49438).

Specification

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

PE-X/Al/PE

Nominal diameter (mm)	Type fitting	Wall thickness (mm)	Wall thickness aluminum (mm)
14	M1	2,0	0,20
16	M1/M5	2,0	0,20
20	M1/M5	2,25	0,24
25	M1/M5	2,5	0,30
32	M1/M5	3,0	0,40
40	M1/M5	4,0	0,50
50	M1	4,5	0,70
63	M1	6,0	0,60

PE-RT/Al/PE-RT

Nominal diameter (mm)	Type fitting	Wall thickness (mm)	Wall thickness aluminum (mm)
75	M1	7,5	0,50

Color pipes: inside natural/ outside white

Color fitting: M1 tinned

M5: brass

Remarks. The joints (press system) are made by a special tool.

Press profile M1 : U

Press profile M5 16, 20 en 32 mm : B-H-TH-U-Up

Press profile M5 25 mm : H-TH-U-Up

Press profile M5 40 mm : H-TH-U

Fitness for contact with drinking water

The pipes and fittings used in this system are approved on the basis of the requirements for hygienic aspects set in the "Regeling materialen en chemicaliën drink- en warm tapwatervoorziening" dated 01-07-2017; ("Materials and chemicals in the supply of drinking water and warm tap water Regulation"; published in the Government Gazette). The criteria for these hygienic aspects are recorded in the respective product certificates.



Tigris M1/M5 system

MARKING

The products shall be marked with the Kiwa-mark.

Pipes

The minimum required marking on the pipes shall be:





- **KIWA**  or  * + class 2 / 10 bar;
- material identification: PE-Xc or PE-RT type 2;
- the build up of the pipe; PE-X/Al/PE or PE-RT/Al/PE-RT ;
- certificate number of accompanying technical approval-with-product certificate of the piping system;
- the manufacturer's name, trade name, system name or logo;
- nominal outside diameter in mm;
- 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.

*) for smaller diameters permitted by Kiwa.

Fittings


The minimum required marking on the fittings shall be:

- **KIWA**  or on small products  or  or **KK** * or **KK** * (if not possible **KIWA**  only on the smallest packaging unit)**;
- 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 smallest packaging unit of the fittings are provided with at least the following information :

- **KIWA** ;
- 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.

*) for small fittings marking with only KK is permitted.

***) only after approval by Kiwa.

LOGISTICS

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

APPLICATION AND USE

The medium pipes and fittings are designed for drinking water installations with a lifetime of 50 years at an operating temperature profile according to class 2 of NEN-ISO 10508 and an allowable working pressure of maximum 10 bar.

RECOMMENDATIONS FOR CUSTOMERS

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.

Tigris M1/M5 system

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

- Wavin Nederland B.V.

and, if necessary,

- Kiwa Nederland B.V.

Consult the supplier's processing guidelines for the proper storage, transport and processing methods.