BRL-K778
Comment version 28-10-2025

Evaluation Guideline

for the Kiwa product certificate for cement mortar lining of drinking water pipes and fittings

creating trust *driving progress*

Preface Kiwa

This Evaluation Guideline (BRL) has been accepted by the Kiwa Board of Experts **CWK**, which represents all relevant parties in the field of **cement mortar lining of drinking water pipes and fittings**. This Board of Experts also supervises the certification activities and will adjust this BRL if required. All references to Board of Experts in this evaluation guideline pertain to the above mentioned Board of Experts.

This evaluation guideline will be used by Kiwa in conjunction with the Kiwa Regulations for Certification, which include the general rules employed by Kiwa for its certification activities.

Kiwa Nederland B.V.
Sir Winston Churchilllaan 273
2288 EA Rijswijk
P.O. Box 70

Telephone: +31 (0)88 998 44 00
nl.kiwa.info@kiwa.com
www.kiwa.com

Binding declaration
This evaluation guideline has been declared binding by Kiwa effective [dd month year]

Content

1 Introduction

1.1 General

The requirements included in this evaluation guideline will be employed by Kiwa when dealing with an application for and the maintenance of a product certificate for cement mortar lining of drinking water pipes and fittings.

This BRL-K778 d.d. YYYY-MM-DD replaces BRL-K778 d.d. 2012-02-01.
The quality declarations issued on the basis of the old BRL will lose their validity after 12 months from the date of the new BRL.

When carrying out certification activities, Kiwa is bound by the requirements laid down in NEN-EN ISO/IEC 17065.

1.2 Field of application / scope

The cement mortar lining is intended to be applied on:

- steel and ductile iron pipes and fittings;
- used for conveying drinking water or raw water intended for the preparation of drinking water;
- installed above or underground;
- conveyance under pressure or by gravity;
- temperature of the water transported not exceeding 50 °C;

1.3 Acceptance of tests reports provided by the supplier

With regard to the requirements included in this evaluation guideline, the applicant, in the view of third party assessments, can submit conformity reports issued by evaluation bodies to prove that the requirements of this BRL are being met. It will have to be demonstrated that the relevant inspection, analysis, test, and/or evaluation reports have been prepared by an institution that meets the corresponding applicable accreditation standard, namely:

- EN-ISO/IEC 17020 for inspection bodies;
- EN-ISO/IEC 17021-1 for certification bodies certifying management systems;
- EN-ISO/IEC 17024 for certification bodies certifying persons;
- EN-ISO/IEC 17025 for laboratories;
- EN-ISO/IEC 17065 for certification bodies certifying products, processes, and services.

Remark:
This requirement is considered to be fulfilled by when demonstrating a certificate of accreditation issued either by the Board of Accreditation (RvA) or by one of the institutions with which an agreement of mutual recognition and acceptance of accreditation has been concluded by the Board of Accreditation. If no certificate of accreditation can be submitted, the certification institution itself will verify if the accreditation criteria have been met.

1.4 Quality declaration

The quality declarations to be issued by Kiwa based on this evaluation guideline will be referred to as Kiwa product certificate.
A model of the product certificate has been included for information purposes in Annex I.

2 Terminology and definitions

The following terms and definitions apply in this evaluation guideline:

- **Board of Experts:** the Board of Experts CWK
- **Certification mark**: a protected mark, the use of which is authorized by Kiwa to suppliers whose products can be considered to comply with the applicable requirements upon delivery.
- **Drinking water**: water intended or partly intended for drinking, cooking or food preparation or other domestic purposes, excluding hot tap water, which is made available by pipeline to consumers or other customers (source Dutch drinking water act*);*
- **Tap wate**r: water intended or partly intended for drinking, cooking or food preparation or other domestic purposes;
  Remark: Tap water can be drinking water, warm tap water or household water.
- **Household water**: non-potable water that may only be used within premises for flushing toilets (source Dutch Drinking Water Act);
- **Evaluation Guideline (BRL):** The agreements made by the Board of Experts on the subject of certification;
- **Initial assessment:** The initial evaluation of the supplier and the relevant products for granting the certificate.
- **Surveillance assessment:** periodic assessment carried out after granting the certificate to determine that the certified products and/or approved quality related processes continue to be in compliance with the requirements laid down in the evaluation guideline;
- **IQC scheme**: a description of the quality inspections carried out by the supplier as part of his quality system;
- **Product certificate**: a document in which Kiwa declares that a product may be deemed, on delivery, to comply with the product specification recorded in the product certificate;
- **Product requirements**: requirements specified by means of measures or figures, focusing on (identifiable) characteristics of products and containing a limiting value to be achieved, which can be calculated or measured in an unequivocal manner.
- **Supplier**: the party (or parties) responsible for ensuring that the products meet and continue to meet the requirements on which the certification is based.

3 Procedure for obtaining a quality declaration

3.1 Initial assessment

The initial assessment to be performed based on the product requirements as specified in this evaluation guideline, including the test methods, depending on the type of product to be certified:

- A (type) testing to determine whether the products comply with the product and/or performance requirements;
- production process assessment;
- assessment of the quality system and the IQC scheme;
- verification of the presence and functioning of the further required procedures.

3.2 Granting the certificate

After completing the initial assessment, the results are presented to the Decision Maker (see 8.2). This person evaluates the results and decides whether the certificate can be granted or if additional data and/or tests are necessary before the certificate can be granted.

3.3 Assessment of the product and/or performance requirements

Kiwa will assess the products to be certified against the certification requirements as stated in this evaluation guideline or will have them assessed on its behalf.
The required samples will be drawn by (or on behalf) of Kiwa.

3.4 Production process assessment

The production process is assessed to determine whether the supplier is capable of continuously producing products that meet the certification requirements.
The assessment of the production process takes place during the ongoing production, and will include at least the following:

- The quality of raw materials, semi-finished products, and end products;
- Internal transport and storage.

3.5 Contract assessment

If the supplier is not the producer of the products to be certified, Kiwa will assess the agreement between the supplier and the producer.
This written agreement, shall be made available to Kiwa and must at least include:
That accreditation bodies, scheme managers and Kiwa will be given the opportunity to observe the certification activities carried out by Kiwa or on behalf of Kiwa at the producer.

4 Product requirements

4.1 General

This chapter describes the requirements that the product shall meet, as well as the determination methods to establish that these requirements are being met.
The requirements of the cement mortar lining set in this evaluation guidelines are based on:

- The regulatory requirements with regards to products and materials in contact with drinking water.
- NEN-EN 10298 “Steel tubes and fittings for on shore and off shore pipelines - Internal lining with cement mortar”
- NEN-EN 545 “Ductile iron pipes, fittings, accessories and their joints for water pipelines - Requirements and test methods”
- ISO 4179 “Ductile iron pipes and fittings for pressure and non-pressure pipelines - Cement mortar lining”

4.2 Suitability for contact with drinking water

Products and materials that (may) enter into contact with drinking water or warm tap water, shall not release substances in quantities that may be harmful for the health of the consumer or affect the quality of the water in any other way. Therefore the products or materials must comply with the toxicological, microbiological, and organoleptic requirements laid down in the Ministerial Regulation on the Materials and Chemicals for Drinking and Warm Water Supply ("*Ministeriële Regeling materialen en chemicaliën drink- en warm tapwatervoorziening*”) published in the Government Gazette. This means that the procedure for obtaining a recognized quality declaration, as referred to in the current Regulations, has to be concluded with a positive result. Products or materials that are provided with a quality declaration[1] issued by, for example, a foreign certification body, may also be used in the Netherlands, provided that this quality declaration has been declared equivalent by the Minister to the quality declaration as referred to in the Regulation.

4.3 Composition of the cement mortar

- The cement mortar mix shall consist of cement, sand, and water, and admixtures or additives may be used. The following applies:
    - All the constituents of the cement mortar mix shall be suitable for contact with drinking water according to (4.2), and
    - Shall comply with the requirements given in the applicable standard EN10298 or EN 545
    - The type of cement used shall have a CE marking.
    - The water shall comply with Drinking Water Directive 2020/2184.
- The mixing ratios shall be determined by the supplier and shall comply with the applicable standard EN 10298 or EN545.
- The following type designation shall be declared on the certificate:
    - Cement type, and
    - “Cement mortar **<with/without>** admixtures/additives”

4.4 Surface condition before application of lining

The internal surface to be lined shall be free from objects that can adversely affect the lining or impair its application. Loose rust, loose mill scale, dirt, debris, oil, grease, paint and other material that may have originated from an external coating process, scattered weld beads as well as blasting residues and/or chemical cleaning process residues shall be removed. However the presence of a light adhesive rust layer does not impair the performance of a cement mortar lining and may be left.

[1] The “Regulation” states (Article 16): “A quality declaration issued by an independent certification body in another Member State of the European Union or in another state that is party to the Agreement on the European Economic Area is equivalent to a recognised quality declaration, insofar as in the opinion of the Minister, the first mentioned quality declaration evidences that at least equivalent requirements as referred to in this regulation are being met.”

4.5 Application of the lining

Cement mortar linings can be applied in three ways:
a) the centrifugation-method (rotating pipe)
b) the spinning-head-method (non-rotating pipe)
c) the manual-method

The application process shall be determined by the supplier in line with the applicable standards; EN 10298, EN 545, or ISO 4179. The supplier shall provide instructions for carrying out these works.

Note: The application of lining on the joints by the customer or user at the installation site is outside the scope of this certification scheme. However, to ensure the quality of this work, the following is recommended:

- The lining application carried out by the customer or user shall be performed using either the same materials that the supplier uses for manual application or materials from another certified supplier.
- The lining application shall be performed according to the supplier's instructions. The customer or user is responsible for ensuring the quality of the work carried out on site.

4.6 Curing

After the application of the fresh lining, controlled curing shall be carried out to provide sufficient hydration of the cement. The lining shall be kept damp, and the surface temperature shall not be allowed to fall below 5 °C. To prevent the lining from drying too rapidly, the pipe ends shall be capped or sealed, unless the lining is allowed to cure under moist/warm conditions or in a draught-free closed space. Curing may be accelerated, and the uniformity of the lining ensured, by suitably adjusting the temperature and humidity of the lining in a regular treatment cycle. The curing period shall be sufficient to ensure that the pipes and fittings can be transported and stacked without damage to the lining.
If curing compounds are used, they shall be suitable for contact with drinking water according to 4.2

4.7 Post treatment

Post-treatments and surface protection systems can be used for improving the performances of the lining. The used treatment shall;

- Be suitable for contact with drinking water according to (4.2).
- Comply with the requirements of EN 1504-2 related to surface protection systems for concrete.
- The use of post treatment shall be declared on the certificate as "post treatment is applied"

4.8 Thickness of the applied lining

he thickness of the lining shall comply with the values specified in the applicable standards EN 10298 or EN 545.
The thickness of the mortar shall be measured as follows:

- According to the method specified in the applicable standards EN 10298 or EN 545.
- For pipes: measurements shall be made at more than 200 mm from each end of the pipe at four points (90° diametrically opposed points in the same cross section). Separate measurements shall be taken over weld seams for submerged arc welded pipes.
- For fittings: measurements shall be made at each end of the fitting at four points (90° diametrically opposed points in the same cross section).
- All readings shall meet the minimum thickness values specified in the applicable standards EN 10298 or EN 545.
- The calculated average of all readings shall be greater than or equal to the nominal thickness value specified in the applicable standards.

4.9 Appearance and surface conditions of the lining

The surface of the cement mortar lining shall be uniform, smooth, free from cavities, defects resulting from poor mixing, and any visible foreign bodies. Trowel marks, protrusion of sand grains, and surface texture inherent to the method of application are acceptable. However, there shall be no recesses or local defects that reduce the thickness below the minimum values specified in the applicable standards.

The formation of hairline cracks, shrinkage cracks, and radial displacements in the dry lining cannot be avoided and is acceptable[2], provided that the crack width and radial displacement (disbondment) do not exceed the values specified in the applicable standards EN 10298 or EN 545. If the crack width or radial displacement exceeds the permissible limits, it shall be repaired.
Cracks and radial displacement shall be measured after curing of the lining and under normal storage conditions, using a magnifying glass or a suitable gauge.

4.10 Strength of the lining

The strength of the lining shall comply with the requirements specified in the applicable standard EN 10298 or EN 545. Strength tests should be carried out according to the procedure described in EN 10298 or EN 545.

4.11 Repairs

Damages, imperfections, and defects shall be repaired either by the supplier in the factory or by the customer/user at the installation site.
The supplier shall provide instructions for carrying out the repairs by the customer/user.

Note: repairs carried out by the customer/user are outside the scope of this certification scheme. However to ensure the quality of repair works the following is recommend:

- Repairs carried out by the customer/user shall be done using the same materials that the supplier uses for manual application (or by materials from another certified supplier).
- The repair works shall be done following the supplier's instructions. The customer/user is responsible for ensuring the quality of the work carried out on site.

4.12 Handling, transport and storage

- The supplier shall take all appropriate precautions to avoid damage to the lined parts during handling, loading, transport and storage at the lining factory.
- The supplier shall have a procedure in place to ensure that the products are protected in a hygienic manner during storage and transport.
- The supplier shall provide the customer/user with instructions for further handling, loading, transportation and storage of lined parts.

[2] These cracks and radial displacements will close and heal when the lining comes into contact with water due to re-swelling of the lining and continued hydration of the cement

5 Markings

The markings described below shall be applied to the external surface of the lined pipes or fitting using a suitable method—such as painting, stenciling, or printing—that provides clear, legible, and durable identification.

5.1 General marking

The lined pipes or fittings shall be marked with following:

- Supplier's name and/or registered trademark
- Production date or production code
- Other identification agreed with the concerned parties

5.2 Certification marking

After entering into a Kiwa certification agreement, the certified products shall marked with the one of following certification mark:

- KIWA 
-  or  or KK or KK for smaller items
- Written text "Kiwa Water Mark"

6 Requirements of the quality system

This chapter sets out the requirements that the supplier's quality system shall meet.

6.1 Manager of the quality system

The organizational structure shall include a designated person responsible for the management of the supplier's quality system.

6.2 Internal quality control plan

The supplier shall have an internal quality control scheme (IQC scheme) which is applied by them.

The following must be demonstrably recorded in this IQC scheme:

- which aspects must be inspected by the supplier;
- according to what methods such inspections are carried out;
- how often these inspections are carried out;
- in what way the inspection results are recorded and kept.

This IQC scheme should be (at least) an equivalent derivative of the model IQC scheme as shown in the Annex.

6.3 Management of test and measuring equipment

The supplier shall determine which laboratory and measuring equipment is required, based on this BRL, to demonstrate that the product/process meets the specified requirements.
Where necessary, the laboratory and measuring equipment shall be calibrated at specified intervals.
The supplier shall assess and record the validity of previous measurement results if calibration shows that the laboratory or measuring equipment is not functioning correctly.
The relevant measuring equipment shall be marked with an identification that indicates its calibration status.
The supplier shall record the results of the calibrations.

6.4 Procedures and working instructions

The supplier shall be able to submit the following:

- Procedures for dealing with product showing deviations;
    - corrective actions to be taken if non-conformities are found;
    - dealing with complaints about product and/or services delivered.
- Work instructions and inspection forms used.

6.5 Other requirements of the quality system

The supplier must be able to provide the following:

- the organization chart
- the qualification requirements of the personnel involved

7 Summary of assessments

This chapter provides a summary of the requirements that shall be assessed by Kiwa within the scope of:

- The initial assessment: The assessment conducted to verify that all requirements specified in the BRL are met, in order to grant the certificate.
- Surveillance assessments: The periodic assessments carried out after the certificate has been granted, to verify that the certified products continue to comply with the requirements specified in the BRL. The frequency of the surveillance assessments for this BRL is 2 visits per year (See 8.5).

7.1 Assessment matrix

Requirement	BRL article no.	Initial assessment for granting the certificate	Surveillance assessment after certificate is granted	
				Frequency
Product requirements				
Suitability for contact with drinking water	4.2	x	x	1x year
Composition of the	4.3	x	x	1x year
Surface conditions before application of lining	4.4	x	x	Every visit
Application of the lining	4.5	x	x	Every visit
Curing	4.6	x	x	Every visit
Post treatment	4.7			Every visit
Thickness of the applied lining	4.8	x	x	Every visit
Appearance and surface conditions of the lining	4.9	x	x	Every visit
Strength of the lining	4.10	x	x	1x year
Repairs	4.11	x	x	Every visit
Handling, transport and storage	4.12	x	x	Every visit
Markings				
General marking	6.1	x	x	Every visit
Certification marking	6.2			Every visit
Requirements of the quality system				
Manager of the quality system	6.1	x	x	1x year
Internal quality control plan	6.2	x	x	1x year
Management of test and measurement equipment	6.3	x	x	1x year
Procedures and working instructions	6.4	x	x	1x year
Other requirements of the quality system	6.5	x	x	1x year

Note: In the event of any changes to the product or production process, the supplier and Kiwa shall consult to determine whether the product or process continues to meet the applicable performance requirements.

8 Agreements on the implementation of certification

8.1 General

The certification body must have a procedure in place that sets out the general rules applied during certification.

8.2 Certification staff

The staff involved in the certification may be sub-divided into:

- Certification assessor/Reviewer **(CAS/RV**): in charge of carrying out the design and documentation evaluations, pre-certification tests, initial assessments, and evaluation of applications and reviewing conformity assessments.
- Site assessor (**SAS**): in charge of carrying out site assessments at the supplier's works;
- Decision maker (**DM**): in charge of taking decisions in connection with the pre-certification tests carried out, continuing the certification based on the inspections carried out and taking decisions on the need to take corrective actions.

8.2.1 Competence criteria certification staff

The competence criteria for certification staff are laid down in the following table. The competence of the certification staff involved must have been demonstrably recorded.

Basic competences	**Evaluation criteria**
Knowledge of company processes. Skills for conducting professional assessments on products, processes, services, installations, design, and management systems.	*Relevant work experience* **SAS, CAS/RV**: 1 year **DM**: 5 years, including 1 year related to certification *Relevant technical knowledge and experience at the level of:* **SAS:** High school (MBO) **CAS/RV, DM**: Bachelor (HBO)
Skills with regard to site assessments to be performed Adequate communication skills (e.g. writing reports, presentation skills and interviewing skills).	**SAS**: Kiwa Assessment training or equivalent and 4 site assessments including 1 supervised independent assessment.
Execution of Initial Assessment	**CAS**: 3 initial assessments under supervision.
Conducting reviews	**RV**: evaluation of 3 reviews

Technical competences	**Evaluation criteria**
Education – specific	**CAS, SAS:** specific courses and training programs (knowledge and skills)
Experience – specific	**CAS, SAS:** • detailed knowledge of the BRL • 4 assessments relating to the BRL or to related BRLs. **DM:** knowledge of the specific BRL in broad terms

Legend:

- Site assessor (**SAS**)
- Certification assessor (**SAS**)
- Reviewer (**RV)**
- Decision maker (**DM**)

8.2.2 Qualifications Certification staff

The qualification of the Certification staff shall be demonstrated by means of assessing the education and experience to the above mentioned requirements. In case staff is to be qualified on the basis of

deflecting criteria, written records shall be kept.
The authority regarding qualifications shall be recorded in the quality assurance system of the certification body.

8.3 The initial assessment report

The certification body records the results of the initial assessment in a report. This report shall comply with the following requirements:

- completeness: the report provides a verdict about all requirements included in the evaluation guideline;
- traceability: the findings on which the verdicts have been based shall be recorded and traceable;
- basis for decision: the DM shall be able to base their decision on the findings included in the report.

8.4 Decision for granting the certificate and/or imposing measures

The decision for granting the certificate or the imposition of measures with regard to the certificate shall be based on the results recorded in the file.
The results of an initial assessment and a periodic assessment (in case of critical non-conformities) must be assessed by a reviewer.
Based on the performed review, the decision maker will decide if:

- The certificate can be granted,
- Sanctions are imposed,
- The certificate shall be suspended or revoked.

The reviewer and the decision maker shall not have been involved in the preparation of the results based on which the decision is being made.
The decision shall be recorded in a traceable manner.

8.5 Nature and frequency of surveillance assessments

The certification body shall carry out surveillance assessments on site at the supplier to verify compliance with their obligations. The Board of Experts decides on the frequency of assessments. At the time this BRL entered into force, the frequency of surveillance visits is **2 per year**. The results of each assessment shall be recorded by Kiwa in a traceable manner in a report.

8.6 Non conformities

When the certification requirements are not met, measures are taken by Kiwa in accordance with the sanctions policy as written in the Kiwa Regulation for Certification. The Kiwa Regulation for Certification and the Sanctions Policy are available on the Kiwa website.
The following applies with regards to the relevance, follow-up of nonconformities, and the sanctions policy.

8.6.1 Severity of nonconformities

The severity of the issued nonconformity in relation to the assessment conducted after granting the product certificate by certification body can be differentiated as follows:

- Nonconformities classified as **critical** are deviations that can directly affect the quality and/or performance of product;
- Other nonconformities (**non-critical** nonconformities).

8.6.2 Follow-up on nonconformities

The follow-up procedure for nonconformities by a certification body is as follows:

- The certification body shall be able to deal with **critical nonconformities** within the time frame established by the certification body, but shall not exceed the maximum term of **30 business days**;
- The certification body shall be able to deal with **noncritical nonconformities** within the time frame established by the certification body, but shall not exceed the maximum term of **90 business days**.

8.7 Report to the Board of Experts

The certification body shall report at least annually about the performed certification activities. In this report the following aspects shall be included:

- Changes in number of issued certificates (granted/withdrawn);
- Number of the surveillance assessment that were carried out in relation to the established minimum;
- Results of the assessments;
- Measures imposed in case of nonconformities;
- Complaints received from third parties about certified products.

8.8 Interpretation of requirements

The Board of Experts may record the interpretation of requirements of this evaluation guideline in one or more separate interpretation document(s). This or those interpretation documents will be available to the members of the BoE, the certification bodies, and the certificate holders who are active based on this evaluation guideline. This or those interpretation documents will be published on Kiwa's website.

9 List of norms and standards

9.1 Public law regulations

Number	Title	Version
	Ministerial Regulation on the Materials and Chemicals for Drinking and Warm Water Supply ("Ministeriële Regeling materialen en chemicaliën drink- en warm tapwatervoorziening") (published in the Government Gazette)	2017

9.2 Standards / normative documents

Number	Title	Version
EN-ISO/IEC 17020	Conformity assessment - General criteria for the operation of various types of bodies performing inspection	*
EN ISO/IEC 17021	Conformity assessment - Requirements for bodies providing audit and certification of management systems	*
EN-ISO/IEC 17024	Conformity assessment - General requirements for bodies operating certification of persons	*
EN-ISO/IEC 17025	General requirements for the competence of testing and calibration laboratories	*
EN-ISO/IEC 17065	Conformity assessment - Requirements for bodies certifying products, processes, and services	*
NEN-EN 10298	Steel tubes and fittings for on shore and off shore pipelines - Internal lining with cement mortar	*
NEN-EN 545	Ductile iron pipes, fittings, accessories and their joints for water pipelines - Requirements and test methods	*
ISO 4179	Ductile iron pipes and fittings for pressure and non-pressure pipelines - Cement mortar lining	*

(*)The current version of the document applies.

Remark: if standards or normative documents are dated, an annual verification will take place to verify if the normative documents are still up to date. Modifications of the applicable normative documents will be published on the services page of Kiwa's website.

Annex I Model certificate

Certificate

Product certificate

K-XXXXXXX-X

kiwa

Valid from Fill in date Replaces Fill in text

Page 1 of xx

Cement mortar lining of drinking water pipes and fittings

KIWA DECLARATION

With this product certificate, issued in accordance with the Kiwa Regulations for Certification, Kiwa declares that there is justified confidence that the products supplied by

Name of business

as specified in this certificate and bearing the Kiwa® mark indicated under "Marks," comply at the time of delivery with the Kiwa Evaluation Guideline BRL "Cement mortar lining of drinking water pipes and fittings" dated [YYYY-MM-DD].

Wim van Loon
Managing Director Nederland

Publication of this certificate is allowed.
Advice: consult www.kiwa.com in order to ensure that this certificate is still valid.

Kiwa Nederland B.V.
Sir Winston Churchilllaan 273
P.O. Box 70
2280 AB RIJSWIJK
The Netherlands
Tel. +31 88 998 44 00
NL.kiwa.info@kiwa.com
www.kiwa.com

Certificate holder
Fill in text

Production location
Fill in text

Product certificate
K-XXXXXXX-X

Cement mortar lining of drinking water pipes and fittings

PRODUCT SPECIFICATION
The following products are covered by this product certificate
Cement mortar lining with the following type designation:

- Cement mortar <with/without> admixtures/additives
- Made with cement type <Cement type>

"post treatment is applied" in cases where no post treatament is applied this sentence will not be mentioned

Suitability for Contact with Drinking Water
This product is approved in accordance with the requirements for hygienic aspects laid down in the "Regeling materialen en chemicaliën drink- en warm tapwatervoorziening" ("Regulation on materials and chemicals for drinking and hot tap water supply") dated 01-07-2017; published in the Government Gazette).

Compliance with these hygienic aspects is ensured based on two main criteria:

- The formulation approved during the certification procedure. Any modifications may only be implemented after successful completion of the applicable approval procedure.
- Specific product requirements concerning hygienic aspects.

For reasons of confidentiality, both the formulation and the specific product requirements are included in the non-public *"Hygienic Aspects Appendix"* attached to this certificate.

MARKING
The Kiwa® approved products are marked with:

- KIWA , or
- or or KK for smaller items, or
- Written text "Kiwa Water Mark"

Place of the mark: applied to the external surface of the lined pipe or fitting

Mandatory specifications:
The lined pipes or fittings shall be marked with following:

- Supplier's name and/or registered trademark
- Production date or production code
- Other identification agreed with the concerned parties

Method of marking:

- Non-erasable and durable such as painting, stenciling, or printing
- Clear and visible after assembly.

APPLICATION AND USE
Fill in text

RECOMMENDATIONS FOR THE CUSTOMERS
At the time of delivery, verify that:
• the products delivered correspond to the agreement;
• the marking and method of marking are correct;
• the the products show no visible defects caused by transport or similar causes.

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

- Fill in text

and, if necessary,

- Kiwa Nederland B.V.

Consult the instructions of the certificate holder for the correct method of storage, transport, and handling.

Annex II Model IQC Scheme

Inspection subjects	Inspection aspects.	Inspection method	Inspection frequency	Inspection registration
Raw materials				
Production process incl in-process tests/batch release tests				
Finished products				
Calibration of measuring and testing equipment				
Packaging, storage and transportation of the finished product				
Nonconforming and/or rejected products				