BRL 52202
November 23rd, 2023

Assessment Directive

For the KOMO® product certificate for

Pipes and fittings for plastic pipe systems intended for non-pressure sewerage outside buildings made of PP

Validated by the BoE LSK on December 9th, 2022

Accepted by the KOMO® Quality and Assessment committee on January 27th, 2023

Trust
Quality
Progress

KOMO. Kwaliteit zoals beloofd.

BRL 52202

Published on: November 23rd, 2023

ASSESSMENT DIRECTIVE
FOR THE KOMO® PRODUCT CERTIFICATE FOR

PIPES AND FITTINGS FOR PLASTIC PIPE SYSTEMS INTENDED FOR NON-PRESSURE SEWERAGE OUTSIDE BUILDINGS MADE OF PP

Validated by the BoE LSK on December 9th, 2022

Accepted by the KOMO® Quality and Assessment committee on January 27th, 2023

Publisher: Kiwa Nederland B.V.

Preface

This KOMO® Assessment Directive (BRL) has been drawn up by the Kiwa Board of Experts "Leidingsystemen van Kunststof" (LSK)), in which the relevant parties in the field of plastics piping and fittings are represented. This Board also supervises the certification activities based on this BRL and where necessary requires this BRL to be revised. All references to the Board of Experts (BoE) in this BRL pertain to the above mentioned Board of Experts.

This BRL will be used by certification bodies who have a license agreement with the KOMO Foundation in connection with the established certification procedures. This BRL details the requirements an applicant or an existing holder of a KOMO product certificate shall comply with, and the method employed by the evaluating certification body. The certification procedure established by the certification body includes a description of the working method as employed by the certification body in the implementation of:

- The investigation for the granting and renewal of a KOMO product certificate on the basis of this BRL.
- The periodic assessments for the maintenance of an existing KOMO product certificate on the basis of this BRL.

The following sections of the BRL have been amended:

- Title: Pipes and fittings added;
- Update of the entire document in accordance with the new KOMO template;
- Contents of the amendment sheet of December 17th, 2018 have been included;
- § 1.7 "Marking and designations" moved, previously § 4.4;
- § 3 concerning "Requirements for the design and for the products and/or materials to be processed" added;
- Chapter 3 from the old version has been included in § 6.2, § 6.3, and § 7.4 in this version;
- § 4.1 paragraph 2, covering "Performing tests in accordance with CEN/TS 1852-2" added;
- § 4.1 paragraph 3, concerning "Measurement inaccuracy" added;
- § 4.1 paragraph 4, concerning "Temperature during on-site testing" added;
- § 4.2.1 concerning "Colour" added;
- § 4.3 Test matrices adjusted in accordance with Witness tests (clarification of the IQC);
- § 5.5 regarding "Archiving" added;
- § 0 regarding "Changes" added;
- § 0 regarding "Temporary suspension of production or delivery" added;
- Appendix I deleted as this is now available on the website of the certification body.

On April 30th, 2024, the following administrative change was implemented in § 1.2:

- Class SN 16 was added for pipes,
- Class SDR 26/SN 8 was removed for fittings and the comment was added.

The text regarding this administrative change is indicated in orange.
This change was already included in the Amendment Sheet dated December 17th, 2018, but was erroneously omitted from this latest version of the BRL. This administrative change has no consequences for quality declarations issued based on this version of the BRL.

NOTE: THIS IS AN ENGLISH TRANSLATION OF THE DUTCH VERSION OF THIS ASSESSMENT DIRECTIVE. IN CASE OF A DISPUTE, THE DUTCH VERSION SHALL BE BINDING.

Publisher:
Kiwa Nederland B.V.
Sir Winston Churchilllaan 273
Postbus 70
2280 AB RIJSWIJK
Tel. 088 998 44 00
Fax 088 998 44 20
info@kiwa.com
www.kiwa.com

Table of Contents

1 Introduction, general provisions, and general requirements

1.1 Introduction

Based on the requirements in this Assessment Directive (BRL) a KOMO product certificate is issued for "Pipes and fittings for plastic pipe systems intended for non-pressure sewerage outside buildings made of PP".

With this product certificate, the certificate holder can demonstrate to its customers that a competent, independent organization oversees the certificate holder's production process, the product quality, and the associated quality assurance. This means that it can be assumed that the product possesses the properties as specified in this BRL.

The requirements stipulated in this BRL are used by certification bodies accredited by the Dutch Accreditation Council (RvA) or have applied for accreditation, and who have a license agreement with the KOMO Foundation, when processing applications for the issuance and maintenance of a KOMO product certificate for "Pipes and fittings for plastic pipe systems intended for non-pressure sewerage outside buildings made of PP".

In addition to the requirements stipulated in this BRL, the certification bodies impose additional requirements concerning the general procedural requirements for certification, as laid down in their internal certification procedures.

1.2 Scope and field of application

The pipes and fittings are made of polypropylene (PP) and are used in non-pressure sewerage outside buildings. The pipes have a homogeneous wall (solid wall) and a smooth interior and exterior (smooth-walled) surface.

Pipes with a profiled outer wall (Type B) are not covered by this BRL. Certification of Type B pipes is covered by BRL 9208-2.

The field of application is in accordance with NEN-EN 1852-1. However, products with a DN ≥ 110 mm and DN ≤ 200 mm shall comply with the NEN-EN 1852-1 requirements for the UD application area code.

Note: The application area codes are defined in NEN-EN 1852-1.

Considering Dutch soil conditions and installation practices, and in deviation from NEN-EN 1852-1 (Table 4 and Table 5) the following SN classes can be certified:

For pipes:

- SDR 33 / SN 4, only 110 mm ≤ d_n < 200 mm;
- SDR 29 / SN 8, only materials with a high E-modulus;
- SDR 26 / SN 8,
- SDR / SN 16.

For fittings:

- SDR 33 / SN 4, only 110 mm ≤ d_n < 200 mm;
- ~~SDR 26 / SN 8;~~
- SDR 27,6 / SN 8.

Note: For 'fittings made from pipe' the SN class of the pipe shall apply.

1.3 Validity

This version of the BRL replaces the version dated September 1st, 2017.

The KOMO product certificates issued based on that version of the BRL will in any case lose their validity on May 23rd, 2024.

New product certificates that are based on the aforementioned previous version of this BRL may be issued up to a period of 6 months before the current product certificates shall be replaced.

The KOMO product certificate is valid indefinitely.

The validity period may be limited (terminated) by:

- A modification of this BRL,
- Failure by the certificate holder to comply with his obligations.

1.4 Relationship with legislation and regulations

1.4.1 European Construction Products Regulation (CPR, EU 305/2011)

No harmonized European standard applies to the products covered by this BRL.

1.5 Requirements for conformity assessment bodies

With regard to the requirements laid down in this BRL, the applicant may submit, in the scope of external assessments, reports issued by conformity assessing institutions to prove that the requirements of this BRL are being met. It shall be demonstrated that the respective analysis/assessment/test and/or evaluation reports have been drawn up by a body that complies with the respective applicable accreditation norm with regard to the subject matter, namely:

- NEN-EN-ISO/IEC 17020 for inspection institutions;
- NEN-EN-ISO/IEC 17021-1 for institutions that certify management systems;
- NEN-EN-ISO/IEC 17025 for laboratories;
- NEN-EN-ISO/IEC 17065 for institutions certifying products, processes, and service.

An organization will be considered as compliant with these criteria if an accreditation certificate, for the respective subject matter, can be submitted which has been issued by the Dutch Accreditation Council (RvA) or another accreditation organization which has been accepted as a member of a multilateral agreement on the subject of mutual recognition and acceptance of accreditation, which have been drawn up within the EA, IAF and ILAC. If no accreditation certificate can be submitted, the certification organization itself will assess if compliance is given to the accreditation.

1.6 KOMO product certificate

KOMO product certificates will be issued based on this assessment guideline. The statements in these product certificates are based on § 3, § 4, and § 5 of this BRL, which also specify which application area codes and SDR classes are included in the product certificate for each product type.

Product certificates may be issued for the following type of products:

- PP pipes for non-pressure sewerage outside buildings, conform § 4, Table 1;
- PP fittings for non-pressure sewerage outside buildings, conform § 4, Table 2.

The product certificate to be issued shall be in accordance with the model product certificate as published for this version of the BRL on the KOMO website (www.komo.nl).

1.7 Marking and designations

The following shall be indelibly marked on the products:

- KOMO logo or KOMO word mark;
- Manufacturer's name or trademark*;
- Material designation*;
- Wall thickness or S-series*;
- Nominal dimensions;
- Production code or production date;
- Application area code

Pipes shall be indelibly marked at intervals of maximum two meters and at least once per pipe.

Additional marking for fittings:

- Nominal dimensions based on the nominal external diameter of the matching pipe;
- Angle of the fitting, if applicable*.

Optional marking:

- BRL 52202;
- Certificate number, without specifying the version, directly behind the KOMO logo or KOMO word mark.

* = Should the space available on the products be limited, this marking may also be applied to the smallest packaging unit.

The KOMO logo shall be applied as follows:

The KOMO word mark shall be applied as follows:

KOMO®

Furthermore, a QR code may be applied which links to the information of the respective product certificate on the KOMO website.
After issuing the KOMO product certificate the KOMO logo/KOMO word mark may also be used by the certificate holder in public communications regarding their certified activities, as specified in the "Rules and Regulations for the use of the KOMO marks" as published on the KOMO website.

2 Terminology

For an explanation of the terminology used in this BRL for certification, please go the glossary on the website of the KOMO Foundation (www.komo.nl).

2.1 General terminology and definitions

For specific terms and definitions related to the products see NEN-EN 1852-1 §3.

- **Certificate holder**
  The party responsible for ensuring that products continuously meet the requirements of this BRL;
- **IQC scheme**
  Internal Quality Control: A description of the quality controls performed by the certificate holder as part of their quality system;
- **Manufacturer**
  The party responsible for the fabrication of the products covered by this BRL.

2.2 Abbreviations

For specific terms and definitions related to the products see NEN-EN 1852-1.

- **BoE**
  Board of Experts
- **BRL**
  Assessment Directive
- **CB**
  Certification Body

3 Requirements for the design and for the products and/or materials to be processed

This chapter details the requirements for the properties of the raw materials, components and products used during the production of the product to be certified under this BRL.

3.1 General

The following requirements apply to raw materials, products, and/or components (including semi-finished components) used in production:

3.1.1 Poly Propylene (PP)

PP shall demonstrably meet the requirements as stated in NEN-EN 1852-1.

Relevant test reports, no older than five years and performed by an NEN-EN-ISO/IEC 17025 accredited laboratory for the relevant procedure, may be used for approval. The frequency of assessments is specified in § **Error! Reference source not found.**.

3.1.2 Elastomeric seals

If elastomeric seals are used, they shall demonstrably meet the technical requirements specified in BRL 2013 Class I.

If the elastomeric seal is delivered under a product certificate based on the above-mentioned Assessment Directive, the manufacturer may assume that this requirement is being met.

If the product is supplied without a product certificate based on the aforementioned Assessment Directive, relevant test reports may be used for approval, which are no older than five years and performed by an NEN-EN-ISO/IEC 17025 accredited laboratory for the relevant procedure. The frequency of the assessment is specified in §**Error! Reference source not found.**.

3.1.3 TPE-sealing

If TPE sealing is used, this shall demonstrably meet the technical requirements specified in KOMO Assessment Directive BRL 2020-2.

If the product is delivered under a product certificate based on the above-mentioned Assessment Directive, the manufacturer may assume that this requirement is being met.

If the product is supplied without a product certificate based on the aforementioned Assessment Directive, relevant test reports may be used for approval, which are no older than five years and performed by an NEN-EN-ISO/IEC 17025 accredited laboratory for the relevant procedure. The frequency of the assessment is specified in §**Error! Reference source not found.**.

3.2 Processing instructions

The raw materials, materials, and semi-finished products to be used shall be processed in accordance with the corresponding processing procedures.

3.3 Initial assessment and periodic assessments

During the initial and periodic assessments, it is assessed whether the materials used meet the requirements and are processed/applied in accordance with the processing instructions.

4 Product requirements and test methods

This chapter details the product requirements for the "PP pipes and fittings for non-pressure sewerage outside buildings" as well as the test methods and acceptance criteria for these requirements.

The tests are performed per product type and diameter group as detailed in CEN/TS 1852-2. The test frequencies are stipulated in § **Error! Reference source not found.** of this BRL. The test frequencies can be adjusted in accordance with Note 3 in § **Error! Reference source not found.** of this BRL.

The applicable tolerances have been accounted for when establishing these requirements and therefore do not need to be considered when drawing conclusions about compliance.

For tests performed at the production site, a temperature between 15 °C and 30 °C is permitted. In the event of a dispute, (23 ± 2) °C is used.

4.1 Product requirements

The requirements for the product and/or materials are stated in NEN-EN 1852-1 along with the deviations and/or additional requirements as specified in §**Error! Reference source not found.**.

The product requirements are summarized in the test matrices Table 1 and Table 2.

4.2 Deviations and/or additional requirements

4.2.1 Colour

Additional for pipes and fittings

The products shall be approximately dust gray (RAL 7037), orange-brown (RAL 8023) or black (RAL 9011 or darker).

4.2.2 Bending test

Additional for fittings and pipes with integrated sockets
Considering the Dutch soil conditions and installation practices, the fittings and pipe-shaped sockets shall meet the requirements of NEN 7146.

4.2.3 Fixation of elastomeric seals

Additional for fittings and pipes with integrated sockets

Every elastomeric seal shall be properly secured in the socket such that it can withstand the forces exerted in practice when extending or retracting the pipes.

After testing the socket shall meet the following requirements:

a. The seal remains firmly fixed;
b. The seal does not distort such that it extends beyond the chamber (where the seal is intended to be fixed).

Test method

Evaluation of fixation takes place by sliding a spigot into the socket.

The spigot that slides into the socket shall not be chamfered. No measures will be taken to center the spigot in the socket during insertion. Both tests shall be conducted in accordance with the installation instructions of the certificate holder.

The speed of insertion must also be equal to the installation speed normally used in practice.

The use of lubricants is not allowed in the first test. If the elastomeric seal is forced out of the socket, then the fixation requirement has not been met.

If the elastomeric seal remains in position but the spigot cannot be inserted into the socket without exerting additional force, then a second test shall be performed. In this case a small amount of lubricant may be applied to the spigot. If the spigot can now be inserted into the socket or vice versa without dislodging the elastomeric seal, then the fixation requirement has been met.

After the first or the second test, the pipe shall be sawn off directly behind the socket, in order to verify that the insertion has been performed correctly.

4.2.4 Welded joints

Additional for pipes and fittings

Welding procedure:

To ensure a proper connection, the manufacturer shall provide welding procedures, preferably in the Dutch language.

Requirements for butt welds:

The connection shall pass the tensile test below without fracture or detachment.

Test method for tensile strength:

A tensile testing machine is required for the test, which can subject the test pieces to a gradually increasing and then constant tensile force in the axial direction at a temperature of (23 ± 2) °C.

Procedure:

Two test pieces are required for the test. A test piece consists of a fitting with a pipe welded to both ends. The total length of the welded test piece shall be at least 500 mm.

The ambient temperature shall be (23 ± 2) °C. Increase the tensile force to the required value in approximately 30 seconds. The tensile force value (K) shall be calculated using the formula:

$K = 0{,}25\sigma\pi(d_e^2 - d_i^2)$

where:

K = Tensile force in Newton
σ = 4,5 N/mm^2
d_e = the nominal outside diameter of the associated PP-pipe
d_i = the nominal inside diameter of the associated PP pipe

4.2.5 Resistance to elevated temperature cycling test and air tightness test

Additional for pipes and fittings with 110 mm ≤ DN ≥ 200 mm

Before and after the elevated temperature cycling test, the assembled system shall be tested for air tightness in accordance with NEN 7039:2003 by applying an overpressure of 4 kPa for 5 minutes. During this time the overpressure shall not decrease to under 2,75 kPa. If this condition is not met, then the overpressure shall not have decreased to under 2,5 kPa. during a 15 minutes period.

Note: A pressure of100 kPa is equivalent to 1 bar.

4.2.6 UV (Ultra violet) ageing

Additional for pipes and fittings, not for black products

Tensile impact strength after exposure to a Xenon-arc lamp

After exposure of the test pieces to a Xenon-arc lamp in accordance with the following exposure test, the average tensile impact strength of the exposed piping material shall not be less than 75% of the average tensile impact strength of the non-exposed piping material. The tensile impact strength shall be determined in accordance with NEN-EN-ISO 8256.

Exposure may also take place using the so-called outdoor exposure. The products will receive a global radiation of 2 GJ/m^2.

In case of doubt, the outdoor exposure will be normative.

Test method: ageing test

Determine the tensile impact strength of the suitable test pieces, which will be exposed in equipment in accordance with NEN-EN-ISO 4892-2 and in testing circumstances as stipulated in NEN-EN-ISO 4892-2 in Table 3, cycle number 1 (method A: exposure with the help of daylight filters – simulation of outdoor exposure).

Exposure time in the equipment shall be calculated on basis of the required global radiation dose and in accordance with EOTA TR 010, attachment C.

In this case the required exposure time is:

$$t = \frac{E}{I} = \frac{E_{sun} \times 0{,}06 \times 0{,}67}{I} = \frac{2 \times 10^9 \times 0{,}06 \times 0{,}67}{60} = 1{,}34 \times 10^6 \ (seconds)$$

t = 372 hours.

where:

E_{sun} represents the equivalent global radiation dose for outdoor exposure; and

I represents the intensity of the light source measured by the equipment between 300 and 400 nm.

Note: The abovementioned calculation method is an approximate method for calculating the exposure duration. However, it provides a logical basis when considering the fact that natural weathering itself is a variable phenomenon that depends on location, aspect, shadow, etc.

Test pieces: pipes

A smooth-walled pipe of approximately 1 meter in length is required. The thickness of the test piece shall preferably be (3 ± 0,2) mm or (4 ± 0,2) mm and the diameter shall be a minimum of 110 mm. Ten test pieces are made according to Type 3 of NEN-EN-ISO 8256. Five of the test pieces will be exposed.

The longitudinal direction of the test pieces shall coincide with the extrusion direction of the pipe.

The side of the test pieces or the material corresponding to the outside of the tube is oriented towards the light source during the aging test.

Test pieces: fittings

This test for the fittings does not need to be repeated if the compound used is the same as for pipes that have already been tested.

Ten test pieces are milled from the fittings according to Type 3 of NEN-EN-ISO 8256. Five of the test pieces will be exposed.

4.3 Test matrices

Table 1: Test matrix for PP pipes

BRL 52202	NEN-EN 1852-1	Product characteristic	Tests in the context of Error! Reference source not found.			
			Initial Audit Error! Reference source not found.	Audit test Error! Reference source not found.	IQC Performed by manufacturer	
					At start up	Frequency [3]
Material						
3.1.1	5.1	Ash residue	x	1 per year	-	1 per year
3.1.1	5.2	Utilization of 'Non-virgin' material	x	1 per year, During inspection	-	1 per batch
3.1.1	5.3	MFR of base material	x	1 per year	-	-
3.1.1	5.4	Resistance to internal pressure	x	1 per 3 years	-	1 per year When 'non-virgin' material used every 6 months
3.1.1	5.5	Thermal stability (OIT)	x	1 per year	-	1 per year
PP pipes						
	6.1	Appearance	x	1 per year During inspection	x	1 per 8 hours
4.2	6.2	Colour				
	7.2	Dimensions	x	1 per year	x	1 per 8 hours For dimensions affected by the process
	8.1.1	Impact resistance	x	1 per year	x	1 per week
	8.1.1	Ring stiffness	x	1 per year	-	1 per year per Class
	9.1	Longitudinal reversion	x	1 per year	x	1 per week
	9.1	MFR on pipes	x	1 per year	x	1 per year
1.7	12	Marking and designations	x	1 per year	x	1 per 8 hours
4.2.6	-	UV (Ultra violet) ageing PP copolymer	x	1 per 4 years	-	-
4.2.6	-	UV (Ultra violet) ageing PP-H homopolymer	x	1 per year	-	-
System						
4.2.4	-	Welded joints	x	-	-	1 per year
4.2.5	10	Resistance to elevated temperature cycling test and air tightness test	x	1 per 3 years	-	1 per 3 years Per 'joint design' highest SDR
5.3	-	Installation instructions	x	1 per year	-	-
Additional for pipes with an integrated socket						
3.1.2 + 3.1.3	11	Elastomeric seals or TPE-sealing	x	-	-	1 per batch
	10	Tightness of elastomeric sealing ring joint	x	1 per year On 1 dimension	-	1 per 3 years Per 'size'-group, per type of seal
	7.4	Dimensions	x	1 per year	x	1 per 8 hours For dimensions affected by the process
4.2.2	-	Bending test	x	1 per year	-	-
4.2.3	-	Fixation of elastomeric seals	x	-	-	1 per year

Table 2: Test matrix for PP fittings

BRL 52202	NEN-EN 1852-1	Product characteristic	Tests in the context of Error! Reference source not found.			
			Initial Audit Error! Reference source not found.	Audit test Error! Reference source not found.	IQC Performed by manufacturer	
					At start up	Frequency [3]
Material						
3.1.1	5.1	Ash residue	x	1 per year	-	1 per year
3.1.1	5.2	Utilization of 'Non-virgin' material	x	1 per year, During inspection	-	1 per batch
3.1.1	5.3	MFR of base material	x	1 per year	-	-
3.1.1	5.4	Resistance to internal pressure	x	1 per 3 years	-	1 per year When 'non-virgin' material used every 6 months
3.1.1	5.5	Thermal stability (OIT)	x	1 per year	-	1 per year
PP fittings						
	6.1	Appearance	x	1 per year During inspection	x	1 per 8 hours
4.2	6.2	Colour				
	7.3 + 7.4	Dimensions	x	1 per year	x	1 per 8 hours For dimensions affected by the process
	8.2	Impact strength	x	-	-	-
	9.2	Effects of heating	x	1 per year	x	1 per week
3.1.2 + 3.1.3	11	Elastomeric seals or TPE-sealing	x	-	-	1 per batch
4.2.2	-	Bending test	x	1 per year	-	-
4.2.3	-	Fixation of elastomeric seals	x	-	-	1 per year
4.2.6	-	UV (Ultra violet) ageing PP copolymer	x	1 per 4 years	-	-
4.2.6	-	UV (Ultra violet) ageing PP-H homopolymer	x	1 per year	-	-
1.7	12	Marking and designations	x	1 per year	x	1 per 8 hours
System						
	10	Tightness of elastomeric sealing ring joint	x	1 per year On 1 dimension	-	1 per 3 years Per 'size'-group, per type of seal
4.2.5	10	Resistance to elevated temperature cycling test and air tightness test	x	1 per 3 years	-	1 per 3 years Per 'joint design' highest SDR
4.2.4	-	Welded joints	x	-	-	1 per year
5.3	-	Installation instructions	x	1 per year	-	-
Additional for assembled fittings						
	8.2	Flexibility or mechanical strength	x	1 per 3 years	-	-
	9.2	Water tightness	-	-	-	1 per 8 hours

Notes applicable to Table 1and Table 2:

1 During the periodic assessment, the inspector will check the product against a selection of the product properties listed in the test matrix. The frequency of the periodic assessments is specified in § 6.3 "Nature and frequency of periodic assessments.

2 If, for any reason, it is not possible to perform a test in an NEN-EN-ISO/IEC 17025-accredited and impartial laboratory specifically for that activity, the test can be performed under witness supervision in an NEN-EN-ISO/IEC 17025-accredited laboratory in consultation with the certification body.

3 The frequency can be adjusted in consultation with certification body, e.g.:
   a. in the case of a continuous (automated) measurement;
   b. if it can be demonstrated that a reduction in frequency does not affect quality.

5 Requirements for certificate holders and internal quality control

5.1 General

The management of the certificate holder is responsible at all times for the quality of the production process, internal quality control, and the quality of the product. The internal quality control shall meet the requirements laid down in this chapter.

5.2 Internal quality control scheme

The certificate holder shall have an internal quality control scheme used by them (IQC-scheme).

This scheme shall clearly establish:

- Which aspects are subject to assessments carried out by the organization of the certificate holder or an external organization contracted by them,
- Which methods are employed to carry out these assessments,
- The frequency of these assessments,
- How these assessment results are recorded and archived.

The IQC-scheme shall at least include the following main groups:

- Control of measuring equipment,
- Incoming (material) assessment,
- Process control,
- Product assessment,
- Internal transportation and storage,
- Delivery,
- Procedures for:
  - The handling of non-conforming products;
  - Processing of non-conformities and the follow-up of corrective measures;
  - Processing of complaints;
  - Control of the work instructions and assessment forms used.

This IQC-scheme shall use the model IQC-scheme published on the website of the CB and detailed such that the CB has sufficient confidence in that the requirements laid down in this this BRL and the “applicable” BRL are being continuously met.

5.3 Installation instructions

The certificate holder shall provide installation instructions for the products covered in this BRL. These instructions shall be in the Dutch language and shall cover at least the specific aspects pertaining to installation, storage and transport.

5.4 Management of test and measuring equipment

The manufacturer shall determine which test and measuring equipment is required in order to demonstrate that the product meets the requirements of this BRL. Where applicable, traceability to international standards shall be demonstrated.

The relevant test and measuring equipment shall be provided with an identification with which the calibration status can be determined.

When necessary, the test and measuring equipment shall be calibrated at specified intervals. The manufacturer shall register the results of the calibrations.

5.5 Archiving

The documents and records referred to in this assessment guideline must be retained for at least 7 years and longer if required by legislation.

Note:
If the “Quality assurance for new building projects Act” (Wkb) is applicable to the products supplied (upon implementation), documents and records that can serve to substantiate the demonstrability of the declared product properties are subject to a retention period of 20 years.

5.6 Changes to the product or production process

After a significant change to the product or production process, it is necessary to determine whether the products still meet the requirements. The certificate holder shall report all proposed significant changes in writing to the certification body. The certification body determines what constitutes a significant change. Once it has been determined that the products with the proposed change meet the requirements of this BRL, the change can be implemented in the certificate holder's production process.

CEN/TS 1852-2 is used as a guideline for qualifying a significant change to the product or production process.

6 External conformity assessments

6.1 General

The certification body will carry out an initial assessment for the purpose of granting a KOMO product certificate. After issuance of the KOMO product certificate, the certification body will carry out periodic assessments.

6.2 Initial assessment

The applicant for the product certificate shall specify which products shall be included in the product certificate. The applicant provides all relevant information on these products for the formulation of the product specification and the declaration on the product characteristics that will be included in the product certificate to be issued.

The certification body will perform an initial assessment for the purpose of issuing a product certificate in which:

- The certification body assesses whether the applicant is able to continuously guarantee, through its internal quality control, that the products possess the characteristics and perform as specified in §3 and §4 of this BRL. This includes the assessment of the production process and the finished product.
- The certification body assesses whether the operational internal quality control system meets the requirements in §5 of this BRL.
- The certification body assesses the processing instructions, application conditions, and installation instructions.
- Determination of the product characteristics as specified in this assessment guideline.

Where applicable, the certification body will check whether the documents provided with regard to the product and/or internal quality control and the results stated therein meet the requirements of this BRL.

A report will be made of the initial assessment on the basis of which the product certificate may or may not be granted.

6.3 Nature and frequency of periodic assessments

After issuing the product certificate, the certification body shall carry out periodic assessments of the certificate holder in order to verify compliance with their obligations. The Board of Experts decides on the nature, scope and frequency of the periodic assessments to be carried out.

On implementation of this BRL, the frequency was set at four periodic assessments per year.

If the certificate holder has a certified NEN-EN-ISO 9001 system, the frequency was set at two assessments per year.

The audit program specifies the nature and frequency of the periodic assessments. These relate to:

- The certificate holder's IQC scheme,
- The results of the assessments performed by the certificate holder,
- Measurements during the production process,
- Measurements of the final product,
- The correct method of marking the certified products,
- Compliance with the required procedures,

which verify compliance with the requirements of this assessment guideline.

The audit program is included in this BRL.

The findings of each assessment performed will be verifiably recorded in a report by the certification body.

6.4 Non-conformities and sanction policy

The assessment and follow-up of non-conformities and the sanction policy are specified in an interpretation document for this assessment guideline. This document is published on the scheme manager's website.

6.5 Temporary production or delivery stop

In the event that no certified products can be (temporarily) produced and/or delivered for a period longer than 12 months, the validity of his KOMO product certificate can be (temporarily) suspended at the request of the certificate holder. Such a suspension may be granted by the certification body for a maximum total period of 2 years.

After the suspension has been granted, a certificate holder can request that his suspension be terminated earlier than the agreed period.

Prior to the resumption of production and delivery under a previously suspended product certificate, an additional assessment shall be carried out to determine whether all the requirements of this BRL are still being met with and that the suspended status can be converted to a valid status.

7 Requirements for the certification body

7.1 General

The certification body shall have a implemented procedure that sets out the general rules applicable to certification.
Specifically, these are:

- The general rules for conducting the initial assessment, which covers:
  - The manner in which certificate holders are informed about the processing of an application;
  - The conduction of the assessment;
  - The decision based on this assessment;
- The general rules regarding the conduction of audits and the audit aspects applicable;
- The measures to be taken by the certification body in the event of non-conformities;
- The measures to be taken by the certification body in the event of improper use of certificates, certification marks, pictograms, and logos;
- The rules for terminating a certificate;
- The possibility of appealing decisions or measures taken by the certification body.

7.2 Certification staff

Certification staff involved can be classified as follows:

- **Certification assessor/Reviewer**: in charge of preparing the design and documentation initial assessments, assessment of applications, and review of the conformity assessments,
- **Location assessor**: in charge of external conformity assessments at the certificate holders' location,
- **Decision maker**: in charge of making decisions with regard to initial assessment carried out and about continuity of certification based on assessments performed.

7.2.1 Competency criteria for certification staff

Qualification requirements for the certification staff consist of qualification requirements for the staff executing the certification activities as laid down in Table 3. The competency of the certification staff involved shall be demonstrably established.

Table 3 : Competency criteria for certification staff

Competencies	Certification assessor Reviewer	Location assessor	Decision maker
Basic competencies			
• Knowledge of business processes • Be able to assess professionally	• Higher Vocational Education • 1 year of relevant experience	• Secondary Vocational Education • 2 years of relevant experience	• Higher Vocational Education • 5 years of relevant experience of which at least 1 year in certification activities
Auditing competencies	Not applicable	• Training in auditing competencies • Participation in at least 4 periodic assessments, with a minimum of 1 periodic assessment carried out independently under supervision	Not applicable

Competencies	Certification assessor Reviewer	Location assessor	Decision maker
Technical competencies			
Relevant knowledge of: • The technology for the manufacture of the products to be inspected, the execution of the processes and the providing of services • The way products are applied, processes carried out and services provided. • Existing defects that appear when using the product, during the execution of the processes as well as shortcomings in provision of services.	Knowledge of one of the following disciplines: • Relevant Technical Higher Vocational Education • Minimum of 1 year of experience in production, testing, assessment and/or installation, including: - 2x assessment under supervision • Or internal training program including: - 2x assessment under supervision	Knowledge of one of the following disciplines: • Relevant Technical Secondary Vocational Education • Minimum of 1 year of experience in production, testing, assessment and/or installation, including: - 2x assessment under supervision - 1x independent assessment • Or internal training program including: - 2x assessment under supervision - 1x independent assessment	Not applicable
Specific technical competencies	Specific knowledge of BRL at a detailed level on the specific BRL or on BRLs that are related to each other	Specific knowledge of: • witness assessment • the BRL chapters related to the quality system and testing	Not applicable

7.2.2 Qualification of certification personnel

Certification personnel shall be demonstrably qualified by testing their knowledge and skills against the abovementioned requirements. If qualification takes place based on other criteria, this shall be documented.

The authority regarding qualification shall be established in the quality system of the certification body.

7.3 Reports for the initial assessment and periodic assessments

The certification body will record the results of the Initial assessment and periodic assessments in an unequivocal report. Such reports shall satisfy the following requirements:

- ***Completeness:*** the report will include a substantiated report of the grade of conformity determined with regard to the requirements laid down in this BRL**,**
- ***Traceability:*** the results on which statements are based shall be recorded in a traceable way.

7.4 Decisions concerning the KOMO product certificate

The decision to grant a product certificate or imposing measures regarding the product certificate shall be based on the results documented in the file.

The results of the initial assessment and a periodic assessment (in case of a critical non-conformity) shall be assessed by a reviewer.

Based on the review carried out, the decision maker will determine if:

- The product certificate can be granted,
- Sanctions shall be imposed,
- The product certificate shall be suspended or withdrawn.

The reviewer and the decision makers shall not have been involved in the process of preparing the results, based on which the decision is being made.

The decision shall be recorded in a traceable manner.

7.5 Reporting to the Board of Experts

The certification body will present a report annually to the Board of Experts about the activities carried out and the respective results regarding the product certificates based on this BRL. This report shall include at least the following topics:

- The number of assessments carried out versus the determined frequency,
- The number of initial assessments carried out,
- Results of these assessments,
- Measures imposed in case of non-conformities,
- Complaints received from third parties about certified products.

7.6 Interpretation of requirements

The Board of Experts may establish the interpretation of the requirements of this BRL in one or more interpretation document(s). Interpretation documents are available for/from members of the Board of Experts, certification bodies and the certificate holders who carry out activities based on this BRL.

Interpretation documents are published on the website of the certification body.

Every certification body that makes use of this BRL is under the obligation to employ the interpretations laid down in such documents.

8 List of standards

8.1 Public legislation and regulations

CPR EU 305/2011	European Construction Products Regulation
Wkb (Wet kwaliteitsborging voor het bouwen)	Quality assurance for new building projects

8.2 Normative documents

The following documents are normatively referenced to in this BRL:

BRL 2013:2016 + Amdt.:2018	Vulcanized rubber products for cold and hot non-drinking water applications
BRL 2020-2:2022	TPE pipe joint seals for non-pressure waste water – Part 2: Seals
CEN/TS 1852-2:2019	Plastics piping systems for non-pressure underground drainage and sewerage – Polypropylene (PP) – Part 2: Guidance for the assessment of conformity
EOTA TR 010:2004	Exposure procedure for artificial weathering
NEN 7146:2001	Plastics piping systems – Bending test for thermoplastics fittings – Test method and specifications
NEN 7039:2003 (Withdrawn:2019)	Plastics pipes and fittings for soil and waste water purposes – Elevated temperature cycling test – Test method for air tightness
NEN-EN 1852-1:2018+A1:2022	Plastics piping systems for non-pressure underground drainage and sewerage – Polypropylene (PP) – Part 1: Specifications for pipes, fittings and the system
NEN-EN-ISO 4892-2:2013	Plastics – Methods of exposure to laboratory light sources – Part 2: Xenon-arc lamps
NEN-EN-ISO 8256:2024	Plastics – Determination of tensile-impact strength

Note:

Verification if the normative documents are still up-to-date is carried out annually. Modifications of the applicable normative documents will be published on the services page on the website of the certification body which publishes the BRL.

8.3 Informative documents

The following documents are informatively referenced to in this BRL:

NEN-EN-ISO 9001: 2015	Quality management systems – Requirements