## BRL-K759 [A1] 2-12-2019 replaces BRL K759 2018-09-25 Evaluation Guideline

for the Kiwa product certificate for coating systems for drinking water applications



Trust Quality Progress

## Preface

This evaluation guideline has been accepted by the Kiwa Board of Experts Watercycle (CWK), in which all relevant parties in the field of Onderwerp are represented. The Board of Experts also supervises the certification activities and where necessary requires the evaluation guideline to be revised. 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.

This BRL shall be reviewed every 5 years by the Board of CWK, but no later than September 25, 2023.

[A1] The quality declarations issued on the basis of assessment guideline BRL-K759 dated 25-9-2018 remain valid.

The change is, removing article:

#### 4.3.12 Bacterial growth and slime formation

The coating must not be conducive to bacterial growth or slime formation in situations where still water is expected for considerable lengths of time. After testing the coating over a period of 16 weeks, the biofilm-forming potential may not be higher than 100 pg ATP/cm2 (adenosine triphosphate picograms).

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#### Binding declaration

78/16082

This evaluation guideline has been declared binding by Kiwa on 25 September 2018

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# **1** Introduction

#### 1.1 General

This evaluation guideline includes all relevant requirements which are adhered to by Kiwa as the basis for the issue and maintenance of a certificate for products used for coating systems for drinking water applications.

For the performance of its certification work, Kiwa is bound to the requirements as included in NEN-EN-ISO/IEC 17065 "Conformity assessment - Requirements for bodies certifying products, processes and services".

#### 1.2 Field of application / scope

The Evaluation Guideline applies to coatings, produced in a dry form such as powder or in a liquid form such as paint, for protection against corrosion of metal attachments, piping, valves, pumps, tanks, pressure vessels and similar, for drinking-water production plants.

#### **1.3** Acceptance of test reports provided by the supplier

If the supplier provides reports from test institutions or laboratories to prove that the products meet the requirements of this evaluation guideline, the supplier shall prove that these reports have been drawn up by an institution that complies with the applicable accreditation standards, namely:

- NEN-EN-ISO/IEC 17020 for inspection bodies;
- NEN-EN-ISO/IEC 17021 for certification bodies certifying systems;
- NEN-EN-ISO/IEC 17024 for certification bodies certifying persons;
- NEN-EN-ISO/IEC 17025 for laboratories;
- NEN-EN-ISO/IEC 17065 for certification bodies certifying products.

#### Remark:

This requirement is considered to be fulfilled when a certificate of accreditation can be shown, issued either by the Board of Accreditation (RvA) or by one of the institutions with which an agreement of mutual acceptance has been concluded by the RvA. The accreditation shall refer to the examinations as required in this evaluation guideline. When no certificate of accreditation can be shown, Kiwa shall verify whether the accreditation standard is fulfilled.

#### 1.4 Quality declaration

The quality declaration to be issued by Kiwa is described as a Kiwa product certificate.

A model of the certificate to be issued on the basis of this evaluation guideline has been included for information as Annex.

# 2 Terms and definitions

#### 2.1 Definitions

In this evaluation guideline, the following terms and definitions apply:

- Board of Experts: the Board of Experts Watercycle (CWK).
- **Certification mark**: a protected trademark of which the authorization of the use is granted by Kiwa, to the supplier whose products can be considered to comply on delivery with the applicable requirements and possibly with quality information on the application of the product is added by a specially designed label which is based on the result , as stated in the report issued by Kiwa on the inspection of the prototype
- **Drinking water:** water intended or partly intended for drinking, cooking or food preparation or other domestic purposes, but does not include hot water, and is made available by pipeline to consumers or other customers.
- **Drinking water installation:** an installation direct or in-direct connected to the public drinking water distribution network of a drinking water company (source Dutch drinking water act);
- **Drinking water treatment:** adding or withdrawing substances to drinking water in order to change the composition and/or properties of the tap water;
- **Drinking water treatment device:** device with which conditioning of the drinking water takes place;
- Evaluation Guideline (BRL): the agreements made within the Board of Experts on the subject of certification.
- Installation: configuration consisting the pipe work, fittings and appliances;
- **Inspection tests**: tests carried out after the certificate has been granted in order to ascertain whether the certified products continue to meet the requirements recorded in the evaluation guideline.
- **IQC scheme (IQCS):** a description of the quality inspections carried out by the supplier as part of his quality system.
- **Pre-certification tests**: tests in order to ascertain that all the requirements recorded in the evaluation guideline are met.
- **Private Label Certificate:** A certificate that only pertains to products that are also included in the certificate of a supplier that has been certified by Kiwa, the only difference being that the products and product information of the private label holder bear a brand name that belongs to the private label holder.
- **Product certificate**: a document in which Kiwa declares that a product may, on delivery, be deemed to comply with the product specification recorded in the product certificate.
- **Product requirements**: requirements made specific by means of measures or figures, focussing 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 that is responsible for ensuring that the products meet and continue to meet the requirements on which the certification is based.
- **Tap water**: water intended for drinking, cooking or food preparation or other domestic purposes.

Note: Tap water includes drinking water, hot tap water and house hold water

# 3 Procedure for granting a product certificate

### 3.1 Pre-certification tests

The pre-certification tests to be performed are based on the (product) requirements as contained in this evaluation guideline, including the test methods, and comprises the following:

- type testing to determine whether the products comply with the product and/or functional requirements;
- production process assessment;
- assessment of the quality system and the IQC-scheme;
- assessment on the presence and functioning of the remaining procedures.

## 3.2 Granting the product certificate

After finishing the pre-certification tests, the results are presented to the Decision maker (see 8.2) deciding on granting the certificate. This person evaluates the results and decides whether the certificate can be granted or if additional data and/or tests are necessary.

## **4** Requirements

#### 4.1 General

This chapter contains the requirements that coating systems for drinking water applications have to fulfil.

#### 4.2 Regulatory requirements

#### 4.2.1 Requirements to avoid deterioration of the quality of drinking water

Products and materials which (may) come into contact with drinking water or warm tap water, shall not release substances in quantities which can be harmful to the health of the consumer, or negatively affect the quality of the drinking water. Therefore, the products or materials shall meet toxicological, microbiological and organoleptic requirements as laid down in the currently applicable "Ministerial Regulation materials and chemicals drinking water and warm tap water supply", (published in the Government Gazette). Consequently, the procedure for obtaining a recognised quality declaration, as specified in the currently effective Regulation, has to be concluded with positive results.

Products and materials with a quality declaration<sup>1</sup>, e.g. issued by a foreign certification institute, are allowed to be used in the Netherlands, provided that the Minister has declared this quality declaration equivalent to the quality declaration as meant in the Regulation.

## 4.3 Product requirements

#### 4.3.1 Pre-treatment

#### Surface

The steel surface shall be clean and free of grease, dirt or welding spatters. The plate shall be rounded off with a radius of 5 mm for coating suitability. Tubes shall be at least 2 mm thick.

#### Blast-cleaning

The steel surface shall be blast-cleaned and, when the material is applied, meet at least the degree of cleanliness Sa 2½ in accordance with ISO standard 8501-1.

#### Ероху

For epoxy paint, the roughness Ra shall be between 10 and 20  $\mu$ m in accordance with ISO 4287-1 (corresponding with a top-dip ratio (R<sub>z</sub>) of approx. 50-100  $\mu$ m).

#### Powder coating

For powder coatings, the roughness Ra shall be between 7 and 10.5  $\mu$ m in accordance with ISO 4287-1 (corresponding with a maximum top-dip ratio (R<sub>max</sub>) of 65-80  $\mu$ m).

<sup>&</sup>lt;sup>1</sup> A quality declaration issued by an independent certification institute in another member state of the European Community or another state party to the agreement to the European Economic Area, is equivalent to a recognized quality declaration, to the extent that, to the judgment of the Minister of the first mentioned quality declaration, is fulfilled the at least equivalent requirements as meant in the Regulation materials and chemicals drinking water- and warm tap water supply.

In-situ

For in-situ this is at the discretion of the applicateur and client.

#### 4.3.2 Applying the material

Wet coating / In-situ

The material is to be applied under standard laboratory conditions and the temperature of the substrate should be at least 3 °C above the dew point. The material must be applied in accordance with the manufacturer's instructions. The time between pre-treatment and the application of the material must be indicated by the manufacturer.

#### Powder coating

The material is to be applied according to the instruction of the manufacturer.

#### 4.3.3 Film thickness

The nominal layer thickness (dry) shall be in accordance with the requirements of the manufacturer and is determined in accordance with NEN-EN-ISO 12944-5.

#### 4.3.4 Porosity

#### Pores

The coating must be free from pores during the final inspection. Generally speaking, the number of flash overs shall be kept to a minimum.

#### Conductive coating

In the case of a conductive coating, porosity can be determined by means of an electrical continuity test in accordance with the low-voltage method. Visual inspection shall be carried out using a strong light source (comparable to 350 lux white light). With this method, the film to be examined is scanned with a sponge; a deflection of the gauge will indicate the presence of pores.

#### Low-voltage method

The test device for the electrical continuity test should consist of a microammeter (measuring range 25  $\mu$ A) connected in series with a potentiometer and a 22.5 to 90 V battery. The second connecting clamp of the meter is connected with a damp sponge. To enhance the conductive and penetrative capacity, the sponge should be moistened with a solution of 1 part ammonia solution 25% (w/w) and 5 parts of ethanol 96% (V/V) in 94 parts distilled water. The battery's other connecting clamp is connected with the metal substrate of the film to be tested with a cable with a spring-mounted clamp.

#### Non-conductive coating

To trace pores in a non-conductive film, the high-voltage method can be used, in conjunction with a spark machine with AC or DC current. In this method, the electrode of the spark appliance (e.g. a brush) is slowly moved over the entire surface of the coating. This surface should be completely dry during the test. The electrode must remain constantly in contact with the coating. In areas containing pores, a spark will flash over.

#### High-voltage method (in accordance with DIN 55 670)

A spark machine with adjustable voltage, set at the test site in such a way that its set voltage corresponds with 9 Volt per  $\mu$ m of the minimum measured prescribed film thickness.

#### 4.3.5 Adhesion

#### Wet coat

The coating must be firmly bonded with the substrate.

Adhesion is tested in accordance with ISO 4624. The minimum adhesion value must be 8 MPa. When the coating has no adhesion, must this been set by the supplier.

Powder coating

Adhesion is tested in accordance with ISO 2409.

In-situ

For in-situ this is at the discretion of the manufacturer.

#### 4.3.6 Appearance

The surface must not display any recognizable flaws, such as blisters and trapped dirt, that could influence resistance. This test is done visually.

#### 4.3.7 Impact resistance ISO 6272-1

The impact resistance of the coating must be such that the result of at least 60 drop tests fall within zone A of Figure 1. If the result of the drop tests is in zone C, the coating does not meet the standard. If the result is in zone B, the drop tests must be continued until either zone A or zone C is achieved



Figure 1 - Diagram of the protective electrode

#### Equipment

The test must be conducted with a drop tester. Care should be taken to ensure that the friction of the falling object during implementation of the series of tests is as low and as constant as possible so that the impact energy stays as constant as possible. A solid steel block with a V-shaped cut with an angle of 120 °C should be used as a support. The falling object must be cylinder-shaped and fitted on one side with a steel half sphere with a diameter of 25 mm. The weight of the falling object - with no more than 5% inaccuracy - must amount to 0.25 kg for the coating. The height from which the piece is to be dropped must be set at 1 m. The result of each drop test is checked with the pore tester.

### 4.3.8 Resistance to penetration

For the coating's resistance to penetration according to Buchholz, the lowest value measured must amount to at least 80% of the average values in accordance with the manufacturer's information. Measurement of the coating's resistance to penetration according to Buchholz must be conducted in conformity with ISO 2815 after 14 days, on the understanding that the measurement must be made at a temperature not exceeding 25 °C. The Buchholz impression resistance of the coating is stated as the arithmetical average of 5 measurements.

### 4.3.9 Cathodic-disbonding of the coating

Carry out the test in accordance with ASTM-G8 method A for 90 days. The requirement is 127 mm<sup>2</sup> max. (Group A).



NB: If the coating has to be tested at a higher temperature, the test must be conducted in accordance with ASTM-G42 for a period of 30 days. The requirement is 127 m<sup>2</sup> maximum. In this case, the water resistance (4.3.10) will also be tested at this high temperature.

#### In-situ

When the coating has no adhesion, must this been set by the supplier.

#### 4.3.10 Water resistance

The water resistance of the coating must be tested at 20 °C. The tests should be conducted for a period of 3 months, with the panels 50% immersed in an installation in accordance with ISO 2812-2. With respect to the non-exposed panels, the adhesion must not decrease by more than 10%.

#### 4.3.11 Chemical resistance

The coating must be resistant to:

#### 4.3.11.1 Cleaning agents

Acid-based cleaning agents (maximum concentration of 15% consisting of hydrochloric acid 5%, phosphoric acid 7.5% and formic acid 2.5%). The test is carried out on two panels measuring 150 x 100 x 3 mm. The panels are completely submerged in a tray containing the cleaning agent and then rinsed with clean tap water. Number of cycles: 5; duration of cycles: 15 minutes (12.5 minutes with the cleaning agent and 2.5 minutes with clean water), temperature of the agent:  $20 \pm 2$  °C.

#### Disinfectants

Hydrogen peroxide disinfectants (concentration: 3% weight max.) and chlorine bleach lye (concentration: 120 mg active chlorine/l.) This test is conducted on two panels measuring 150 x 100 x 3 mm. The panels are completely immersed in a tray containing the hydrogen peroxide solution and subsequently rinsed with clean tap water. Number of cycles: 10; duration of cycles: 5 minutes (4 minutes with disinfectant and 1 minute with clean water); temperature of the agent:  $20 \pm 2^{\circ}$ C. The test is then repeated with the chlorine bleach solution.

Subjecting the coating to stress must not result in any loss of adhesion, and the resistance to penetration may not decrease by more than 20% of the initial measured value.

#### 4.3.12 Bacterial growth and slime formation

The coating must not be conducive to bacterial growth or slime formation in situations where still water is expected for considerable lengths of time. After testing the coating over a period of 16 weeks, the biofilm-forming potential may not be higher than 100 pg ATP/cm2 (adenosine triphosphate picograms).

#### 4.3.13 Resistance to wear

The coating must be resistant to wear. Tests are conducted in accordance with ASTM D 4060 with the Taber Abrasor. After 1,000 revolutions (CS 17 wheels/1 kg) 300 mg weight loss max. may occur.

#### 4.3.14 Materials for repairing coatings

Wet coating / powder coating / In-situ

If the manufacturer utilizes a different material for carrying out repairs than the one tested here, that material will also have to be tested in accordance with the requirements of chapter 4.

Repair shall be carried out according to the manufacturer's instructions.

#### 4.3.15 Identification

The supplier of the starting material shall at least provide the processor with the following information on the information sheet / repair instructions:

- a. description;
- b. prescribed dry film thickness;
- c. density kg/dm3;
- d. mixing ration of the components, to be started in parts by volume and in mass proportions (paint);
- e. flash points of the components and of any diluents, in °C (paint);
- f. storage stability (time and temperature);
- g. hazard coding for processing;
- h. marking;
- i. type of packaging;
- j. sieve analysis (powder);
- k. associated HA-appendix.
- I. shelf live

NB. When the repair product corresponds with the drinking water coating, this is not applicable

## 4.3.16 Additional product requirements

In addition to the requirements listed under 4.3.1, the following requirements apply:

#### 4.3.16.1 Hygienic treatment of products in contact with drinking water

The supplier shall have a procedure to protect the products in such a way that hygiene is ensured during storage and transport. In addition, the supplier shall inform customers about handling of the products supplied under the certificate that come into contact with drinking water and hot water, during the period from arriving at the construction site through to the execution and commissioning.

The primary reason for the information is the contribution to the awareness of the importance of hygienic work as a 'preventive measure'.

# 5 Marking

## 5.1 General

The products shall be marked with following indelible marks and indications:

- name or logo of the manufacturer;
- data or code indicating the date of production;
- type indication.

#### 5.2 Certification mark

After concluding a Kiwa certification agreement, the certified products shall be indelible marked with the certification mark:

For products which come in contact with drinking water:

- The certification number
- The Kiwa Water Mark "KIWA 👹 "

# 6 Requirements in respect of the quality system

This chapter contains the requirements which have to be met by the supplier's quality system.

#### 6.1 Manager of the quality system

Within the supplier's organizational structure, an employee who will be in charge of managing the supplier's quality system must have been appointed.

#### 6.2 Internal quality control/quality plan

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

The following must be demonstrably recorded in this IQC scheme:

- which aspects are checked 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 at least be an equivalent derivative of the model IQC scheme as shown in the Annex.

#### 6.3 Control of test and measuring equipment

The supplier shall verify the availability of necessary test and measuring equipment for demonstrating product conformity with the requirements in this evaluation guideline.

When required the equipment shall be kept calibrated (e.g recalibration at interval). The status of actual calibration of each equipment shall be demonstrated by traceability through an unique ID.

The supplier must keep records of the calibration results.

The supplier shall review the validity of measuring data when it is established at calibration that the equipment is not suitable anymore.

#### 6.4 **Procedures and working instructions**

The supplier shall be able to submit the following:

- procedures for:
  - o dealing with products showing deviations;
  - o corrective actions to be taken if non-conformities are found;
  - odealing with complaints about products and/or services delivered;
- the working instructions and inspection forms used.

#### 6.5 Other requirements

The supplier shall be able to submit the following:

- the organisation's organogram;
- qualification requirements of the personnel concerned.

# 7 Summary of tests and inspections

This chapter contains a summary of the following tests and inspections to be carried out in the event of certification:

- pre-certification tests: tests in order to ascertain that all the requirements recorded in the evaluation guideline are met;
- **inspection test: tests** carried out after the certificate has been granted in order to ascertain whether the certified products continue to meet the requirements recorded in the evaluation guideline;
- **inspection of the quality system of the supplier:** monitoring compliance of the IQC scheme and procedures.

#### 7.1 Test matrix

| Description of requirement | Article no. | Tests within the scope of: |   |  |
|----------------------------|-------------|----------------------------|---|--|
|                            | of BRL      | Pre-<br>certification      | Inspection by Kiwa<br>after granting of<br>certificate<br><sub>a,b)</sub> |  |
| Toxicological requirements |             |                            |   |  |
| Density                    |             | Х                          | X   |  |
| Grind fineness             |             | Х                          | Х   |  |
| Pot life                   |             | Х                          | Х   |  |
| Dryness                    |             | Х                          | Х   |  |
| Visual                     | 4.3.6       | Х                          | Х   |  |
| Film thickness             | 4.3.3       | Х                          | Х   |  |
| Porosity                   | 4.3.4       | Х                          | Х   |  |
| Adhesion                   | 4.3.5       | Х                          | Х   |  |
| Resistance to penetration  | 4.3.8       | Х                          | Х   |  |
| Impact resistance          | 4.3.7       | Х                          | Х   |  |
| Disbonding of the coating  | 4.3.9       | Х                          | Х   |  |
| Water resistance           | 4.3.10      | Х                          | Х   |  |
| Chemical resistance        | 4.3.11      | Х                          | Х   |  |
| Resistance to wear         | 4.3.13      | Х                          | X   |  |
| Migration test             |             | Х                          | 1x / 3 years  |  |
| Certification mark         |             | X                          | X   |  |

a) In case the product or production process changes, it must be determined whether the performance requirements are still met.

<sup>b)</sup> During the inspection tests, the inspector verifies the products on basis of a selection from the above mentioned product requirements. The frequency of inspection visits is defined in chapter 8.6 of this evaluation guideline.

#### 7.2 Inspection of the quality system of the supplier

The quality system of the supplier will be checked by Kiwa on the basis of the IQC scheme.

The inspection contains at least those aspects mentioned in the Kiwa Regulations for Certification.

# 8 Agreements on the implementation of certification

## 8.1 General

Beside the requirements included in these evaluation guidelines, the general rules for certification as included in the Kiwa Regulations for Product Certification also apply. These rules are in particular:

- the general rules for conducting the pre-certification tests, in particular:

   the way suppliers are to be informed about how an application is being handled;
   how the test are conducted;
  - $_{\odot}$  the decision to be taken as a result of the pre-certification tests.
- the general rules for conducting inspections and the aspects to be audited,
- the measures to be taken by Kiwa in case of Non-Conformities,
- the measures taken by Kiwa in case of improper use of Certificates, Certification Marks, Pictograms and Logos,
- terms for termination of the certificate,
- the possibility to lodge an appeal against decisions of measures taken by Kiwa.

## 8.2 Certification staff

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

- Certification assessor (CAS): in charge of carrying out the pre-certification tests and assessing the inspectors' reports;
- Site assessor (SAS): in charge of carrying out external inspections at the supplier's works;
- Decision maker (**DM**): in charge of taking decisions in connection with the precertification tests carried out, continuing the certification in connection with the inspections carried out and taking decisions on the need to take corrective actions.

#### 8.2.1 Qualification requirements

The qualification requirements consist of:

- qualification requirements for personnel of a certification body which satisfies the requirements EN ISO / IEC 17065, performing certification activities
- qualification requirements for personnel of a certification body performing certification activities set by the Board of Experts for the subject matter of this evaluation guideline

Education and experience of the concerning certification personnel shall be recorded demonstrably.

| Basic requirements   | Evaluation criteria  |
|--|--|
| Knowledge of company processes<br>Requirements for conducting<br>professional audits on products,<br>processes, services, installations,<br>design and management systems. | Relevant experience: in the field<br>SAS, CAS : 1 year<br>DM: 5 years inclusive 1 year with respect to<br>certification<br>Relevant technical knowledge and experience on<br>the level of:<br>SAS: High school |
|  |  |

| Basic requirements  | Evaluation criteria  |
|---|--|
| Competence for execution of site<br>assessments.<br>Adequate communication skills<br>(e.g. reports, presentation skills and<br>interviewing technique). | <b>SAS</b> : Kiwa Audit training or similar and 4 site assessments including 1 autonomic under review. |
| Execution of initial examination  | <b>CAS</b> : 3 initial audits under review.  |
| Conducting review   | CAS: conducting 3 reviews  |

| Technical competences           | Evaluation Criteria  |
|---------------------------------|--|
| Education                       | <ul> <li>General:</li> <li>Education in one of the following technical areas:</li> <li>Civil Enginereing;</li> <li>Enginering.</li> </ul>  |
| Testing skills                  | <ul> <li>General:</li> <li>1 week laboratory training (general and scheme specific) including measuring techniques and performing tests under supervision ;</li> <li>Conducting tests (per scheme).</li> </ul>   |
| Experience - specific           | <ul> <li>CAS <ul> <li>2 complete applications (excluding the initial assessment of the production site) under the direction of the CAS</li> <li>1 complete application self-reliant (to be evaluated by PM)</li> <li>2 initial assessments of the production site under the direction of the PM</li> <li>1 initial assessment of the production site self-reliant (witnessed by PM)</li> </ul> </li> <li>SAS <ul> <li>2 inspection visits together with a qualified SAS</li> <li>1 inspection visits conducted self-reliant (witnessed by PM)</li> </ul> </li> </ul> |
| Skills in performing witnessing | PM<br>Internal training witness testing  |
| aganda                          |  |

Legenda:

- Certification assessor (CAS) •
- Decision maker (DM) •
- Product manager (**PM**) •
- Site assessor (SAS) •

#### 8.2.2 Qualification

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 to qualify staff rests with the:

- PM: qualification of CAS and SAS; •
- management of the certification body: qualification of DM. •

#### 8.3 Report pre-certification tests

The certification body records the results of the pre-certification tests 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 his decision on the findings included in the report.

#### 8.4 Decision for granting the certificate

The decision for granting the certificate shall be made by a qualified Decision maker which has not been involved in the pre-certification tests. The decision shall be recorded in a traceable manner.

#### 8.5 Layout of quality declaration

The product certificate shall be in accordance with the model included in the Annex.

#### 8.6 Nature and frequency of third party audits

The certification body shall carry out surveillance audits on site at the supplier at regular intervals to check whether the supplier complies with his obligations. The Board of Experts decides on the frequency of audits.

At the time this BRL entered into force, the frequency of audits amounts 3 audit(s) on site per year for suppliers with a quality management system in accordance with ISO 9001 for their production, which has been certified by an acknowledged body (in accordance with ISO/IEC 17021) and where the IQC scheme forms an integral part of the quality management system.

In case the supplier is not in possession of any product certificate (issued by Kiwa or any other accredited certification body), the frequency is increased to 4 visits for the duration of one year.

The audit program on site shall cover at least:

- the product requirements;
- the production process;
- the suppliers IQC scheme and the results obtained from inspections carried out by the supplier;
- the correct way of marking certified products;
- compliance with required procedures;
- handling complaints about products delivered.

For suppliers with a private label certificate the frequency of audits amounts to one audit per two years. These audits are conducted at the site of the private label certificate holder. The audits are conducted at the site of private label holder and focussed on the aspects inserted in the IQC scheme and the results of the control performed by the private label holder. The IQC scheme of the private label holder shall refer to at least:

- the correct way of marking certified products;
- compliance with required procedures for receiving and final inspection;
- the storage of products and goods;
- handling complaints.

The results of each audit shall be recorded by Kiwa in a traceable manner in a report.

#### 8.7 Report to the Board of Experts

De certification body shall report annually about the performed certification activities. In this report the following aspects are included:

- mutations in number of issued certificates (granted/withdrawn);
- number of executed audits in relation to the required minimum;
- results of the inspections;
- required measures for established Non-Conformities;
- received complaints about certified products.

#### 8.8 Non conformities

When the certification requirements are not met, measures are taken by Kiwa in accordance with the sanctions policy. The Sanctions Policy is available on the Kiwa website.

#### 8.9 Interpretation of requirements

The Board of Experts may record the interpretation of requirements of this evaluation guideline in one separate interpretation document.

# 9 Titles of standards

## 9.1 Public law rules

BJZ2011048144 29 juni 2011 Regeling van de Staatssecretaris van Infrastructuur en Milieu<sup>1</sup>

#### 9.2 Standards / normative documents

| Number               | Title  |
|----------------------|--|
| ASTM D 4060          | Abrasion Resistance of Organic Coatings by the Taber Abrasor   |
| ASTM G 6             | Abrasion Resistance of Pipeline Coatings   |
| ASTM-G 8             | Cathodic Disbonding of Pipeline Coatings   |
| ASTM-G42             | Cathodic Disbonding of Pipeline Coatings Subjected to Elevated<br>Temperatures   |
| DIN 55 670           | Paints and similar coating materials; testing of paint coats, paint films and similar coatings on pores and cracks at high tension   |
| NEN-EN-ISO 2815      | Paints and varnishes – Buchholz indentation test   |
| NEN-EN-ISO 2409      | Paints and varnishes – Cross-cut test  |
| NEN-EN-ISO 4624      | Paints and varnishes – Pull-off test for adhesion  |
| NEN-EN-ISO 6272-1    | Paints and varnishes – Rapid-deformation (impact resistance) tests – Part 1: Falling-weight test, large area indenter  |
| NEN-EN-ISO 8501-1    | Preparation of steel substrates before application of paints and related<br>products – Visual assessment of surface cleanliness – Part 1: Rust grades<br>and preparation grades of uncoated steel substrates and of steel<br>substrates after overall removal of previous coatings |
| NEN-EN-ISO 2812-2    | Paints and varnishes – Determination of resistance to liquids – Part 2: water immersion method   |
| NEN-EN ISO/IEC 17020 | Conformity assessment - General criteria for the operation of various types of bodies performing inspection  |
| NEN-EN ISO/IEC 17021 | Conformity assessment - Requirements for bodies providing audit and<br>certification of management systems   |
| NEN-EN ISO/IEC 17024 | Conformity assessment - General requirements for bodies operating<br>certification of persons  |
| NEN-EN ISO/IEC 17025 | General requirements for the competence of testing and calibration laboratories  |
| NEN-EN ISO/IEC 17065 | Conformity assessment - Requirements for bodies certifying products, processes and services  |

<sup>&</sup>lt;sup>1</sup> Valid from 1 July 2017

## I Model certificate (informative)



# Product certificate KXXXXX/0X



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## Name product

STATEMENT BY KIWA

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

## Name customer

as specified in this 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

inclusive amendment sheet dated dd-mm-yyyy.

Luc Leroy Kiwa

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

Kiwa Nederland B.V. Sir Winston Churchillaan 273 P.O.Box 70 2280 AB RUSWUK The Netherlands Tel. +31 88 998 44 00 Fax +31 88 998 44 20 info@kiwa.nl www.lowa.nl

Company Name customer Address customer

Fax number www. Email

40410

Certification process consists of initial and regular assessment of: quality system product

**Evaluation Guideline** © Kiwa Nederland B.V.

# II Model IQC-scheme (informative)

| Inspection<br>aspects | method                | frequency         | Inspection<br>registration   |
|-----------------------|-----------------------|-------------------|--|
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|                       | Inspection<br>aspects | Inspection method | Inspection<br>aspects     Inspection<br>frequency       Inspector<br>frequency |