



Model Covenant K-0212902-2

Issued 2025-01-15 including amendment 2025-06-15

Replaces version 2023-09-01

Page 1 of 22

Products for primary assets of Energy Installations – Validation of circularity data from Raw Material Passport (RMP)

STATEMENT BY KIWA

With this Covenant, issued in accordance with the Kiwa Regulations for Certification, Kiwa declares that legitimate confidence exists that the circularity data of the products manufactured by

XXX

and used as a primary asset of the energy network operators united in Netbeheer Nederland as specified in this Kiwa Covenant, may be relied upon to comply with the circularity data of the Raw Material Passports of the energy network operators united in Netbeheer Nederland.

Ron Scheepers
Kiwa

Publication of this certificate is allowed.

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

COVENANT

Kiwa Nederland B.V.
Sir Winston Churchillaan 273
Postbus 70
2280 AB RIJSWIJK
The Netherlands
Tel. +31 88 998 44 00
Fax +31 88 998 44 20
NL.Kiwa.info@Kiwa.com
www.kiwa.com

Supplier
XXX
Street name number
Postcode City
Tel.
e-mail
website

Certification process
consists of initial and
regular assessment of:

- Quality system
- Circularity data RMP

Preface

This Kiwa Covenant has been prepared by the Technical Committee “Validation of circularity data from raw material passport” of Kiwa Nederland B.V. and accepted by the Kiwa Committee of Covenant (KCC). The KCC also supervises the certification activities and where necessary requires the Kiwa Covenant to be revised.

This Kiwa Covenant will be used by Kiwa in conjunction with the Kiwa-Regulations for Certification and Kiwa manual 15013. This regulation details the method employed by Kiwa for conducting the necessary investigations prior to issuing the product certificate and the method of external control. The inspection frequency is determined by the above-mentioned Technical Committee and Kiwa Committee of Covenant.

Only after approval by the above mentioned Technical committee it is allowed for other certification institutes than Kiwa to use the contents of this Model Covenant for their own certification purposes.

Kiwa Nederland B.V.

Sir Winston Churchillaan 273

Postbus 70

2280 AB RIJSWIJK

Telephone: Tel. +31 88 998 44 00

NL.Kiwa.info@Kiwa.com

www.kiwa.com

© 2025 KIWA N.V.

All rights reserved. No part of this report may be reproduced, stored in a database or retrieval system, or published, in any form or in any way, electronically, mechanically, by print, photoprint, microfilm or any other means without prior written permission from the publisher.

The use of this Evaluation Guideline by third parties, for any purpose whatsoever, is only allowed after a written agreement is made with Kiwa to this end.

Binding declaration

This model Covenant has been declared binding by Kiwa effective 15-1-2025.

Amendment Covenant K-0212902-2

2025-06-15

Products for primary assets of Energy Installations – Validation of circularity data from Raw Material Passport (RMP)

Date amendment sheet: 2025-06-15

Approved by the Kiwa Committee of Covenant (KCC)

Validity

This amendment belongs to Covenant K-0212902-2 dated 2025-01-15

The certificates issued based on that Covenant do not lose their validity.

Binding declaration

This amendment is declared binding by Kiwa on 2025-06-15.

Description of the change

Changes due to Covenant are made in the following articles:

- 1.1 replace:

The assessment scope of this Kiwa Covenant is the validation of the circularity aspects of the raw materials used in manufacturing of products - used as a primary asset of the energy network operators united in Netbeheer Nederland - in terms of Circular-in content, and Recyclability data as specified in raw material passports for the energy network operators in The Netherlands. The products are primary asset parts of energy distribution systems including e.g. cables, pipes, valves, fittings, hoses, manifolds and regulators.

The Circular-in content and Recyclability are determined based on principles described in product related standards including:

by:

The assessment scope of this Kiwa Covenant is the validation of the circularity aspects of the raw materials used in manufacturing of products - used as a primary asset of the energy network operators united in Netbeheer Nederland - in terms of Circular-in content as specified in raw material passports for the energy network operators in The Netherlands. The products are primary asset parts of energy distribution systems including e.g. cables, pipes, valves, fittings, hoses, manifolds and regulators.

The Circular-in content is determined based on principles described in product related standards including:

- Remove chapter 2.2
- Remove chapter 3.2
- 6.2 Remove from table:

Verification and confirmation of Recyclability	3.2	X	X
--	-----	---	---

- 6.2 Remove from table:

IEC/TR 62635	End of life Recyclability calculation for electrical and electronic equipment	2012
--------------	---	------

- Remove Annex III

Contents

	Preface	2
	Amendment Covenant K-0212902-2 - 2025-06-15	3
	Contents	4
1	Scope of the Covenant	6
1.1	The assessment scope and definition of the product	6
1.2	Fitness for function	6
1.3	Common terms relating to the certificate	6
2	Determination of the circularity aspects: basic principle and determination methods	7
2.1	Determination of Circular-in content	7
2.1.1	Basic principle	7
2.1.2	Calculation of the Circular-in content	7
2.1.3	Documentation required for determining the Circular-in content	8
2.1.4	Requirements for certification of Circular-in content	8
2.1.5	Procedure for verification of Circular-in content claim	8
2.2	Determination of Recyclability: basic principle and determination methods	8
2.2.1	Basic principle	8
2.2.2	Calculation of the Recyclability	9
2.2.3	Documentation required for determining the Recyclability	9
2.2.4	Requirements for certification of Recyclability	9
2.2.5	Procedure for verification of Recyclability claim	9
2.3	Determination of Low Carbon footprint	9
2.3.1	Basic principle	9
2.3.2	Documentation required for determining the Low Carbon footprint	10
2.3.3	Requirements for certification of Low Carbon	10
2.3.4	Procedure for verification of Low Carbon claim	10
3	Verification and confirmation of the circularity data	10
3.1	Verification and confirmation of Circular-in content	10
3.2	Verification and confirmation of Recyclability	10
3.3	Verification and confirmation of Low Carbon footprint	10
4	Marking	11
5	Quality management system requirements	12
5.1	General	12
5.2	Internal quality control/quality plan	12
6	Initial inspection and continuous surveillance by Kiwa	13
6.1	Summary of investigations and inspections	13
6.2	Assesment Matrix for validation of circularity data from material passport	13
6.3	Inspection of the quality system	13
6.4	Changes in the Raw Material Passports	13
7	Agreement on the implementation of certification	14
7.1	General	14

7.2	Report initial investigation	14
7.3	Nature and frequency of external inspections	14
7.4	Sanction policy	14
8	Titles of standards	15
8.1	Public legislaton	15
8.2	List of normative documents	15
Annex I – Questionnaire for Circular-in content		17
Annex II – Calculation model Circular-in content – example		18
Annex III – Questionnaire for Recyclability		19
Annex IV – Third party accepted certificates		20
Annex V – Model IQC scheme		22

1 Scope of the Covenant

1.1 The assessment scope and definition of the product

The assessment scope of this Kiwa Covenant is the validation of the circularity aspects of the raw materials used in manufacturing of products - used as a primary asset of the energy network operators united in Netbeheer Nederland - in terms of Circular-in content, and Recyclability data as specified in raw material passports for the energy network operators in The Netherlands. The products are primary asset parts of energy distribution systems including e.g. cables, pipes, valves, fittings, hoses, manifolds and regulators.

The Circular-in content and Recyclability are determined based on principles described in product related standards including:

1. ISO 22095: Chain of custody — General terminology and models; where separated storage/transportation of recycled material from virgin material is required for clear identification of recycled content
2. ISO 14021: Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling), paragraph 7.8.1 ; where defining the term recycled content (see also section 1.3) and paragraph 7.8.4; defining the formula for calculating the percentage of recycled content.
3. ISO 14040/14044: Environmental management - Life cycle assessment - Principles and framework (ISO 14040:2006,IDT).
4. IEC 62542: Environmental standardization for electrical and electronic products and systems - Glossary of terms, chapter 6; where defining recycling as processing of waste materials for the original purpose or for other purposes, excluding energy recovery.
5. Waste Framework Directive: Directive 2008/98/EC for End-Of-Waste criteria (article 6) and Prevention of waste (article 9).
6. ISO 16620-1: Plastics - Biobased content - Part 1: General principles.

The source Circular-in content is expected to be traceable per certificates issued according to for example the principles of EN 15343 for recycled plastic products, NVN-CLC/TS 50625 series for waste electric and electronic equipment, ISO/IWA 19 for metals (which is withdrawn and soon replaced by ISO/CD 59014 and other related norms for other materials and NEN EN 455571. General method for assessing the proportion of recycled material content in energy-related products.

1.2 Fitness for function

This Kiwa Covenant is issued under Kiwa Covenant Manual K15013. The functional requirements for products are to be certified according to the clause 4.2 of the Manual K15013. This Covenant is issued only for the validation of the circular data of the raw materials used in the manufacturing of the product and not applicable for determining the fitness of function of the materials/products for the intended application.

1.3 Common terms relating to the certificate

- **BioBased Content:** total amount of biobased synthetic polymer, natural polymer, and biobased additives in a product.
 - **Primary: newly grown**
 - **Secondary: Recycled material**
- **Certificate holder:** The party that is responsible for ensuring that the products meet and continue to meet the requirements on which the certification is based. Official registered name of the certificate holder should be mentioned in the documentation.
- **Circular-in content:** Content that is recycled and/or secondary biobased.

- **Low Carbon:** Low Carbon production methods are maintained to improve the environmental footprint of specific materials and therefore reduces the environmental footprint of a product. Carbon emissions of the production of metals can be lowered by replacing fossil based with renewable based energy and/or replacing primary with secondary/recycled content.
- **Network administrator:** Grid and network operators that are responsible for the construction and maintenance of public energy infrastructures (electricity and gas).
- **Recyclability:** A characteristic of a product or associated component that can be diverted from the waste stream through available processes and programmes and can be collected, processed and returned to use in the form of raw materials or products.
- **Recycled content:** Proportion, by mass, of recycled material in a product per material type. Only pre-consumer and post-consumer materials shall be considered as recycled content, consistent with the following usage of terms:
 - **Pre-consumer material:** Material diverted from the waste stream during a manufacturing process. Excluded is reutilization of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it. Not excluded hereby is reutilization of rework materials obtained from a recycling process in which assembled products are separated into individual parts. Solely shredding of rework material for reutilization cannot be considered a recycling process.
 - **Post-consumer material:** Material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.
 - **Recycled material:** Material that has been reprocessed from recovered [reclaimed] material by means of a manufacturing process and made into a final product or into a component for incorporation into a product.
 - **Recovered [reclaimed] material:** Material that would have otherwise been disposed of as waste or used for energy recovery, but has instead been collected and recovered [reclaimed] as a material input, in lieu of new primary material, for a recycling or a manufacturing process.

2 Determination of the circularity aspects: basic principle and determination methods

2.1 Determination of Circular-in content

2.1.1 Basic principle

The evaluation by Kiwa whether the determination of Circular-in content can be validated is based on the assessment of the applicable company processes, including entry control of raw materials, the manufacturing of the products, storage and transport to the customers, that need to be set up in such a way that the values declared in the Raw Material Passport(s) with regard to "content of Circular material" can be substantiated. The specifications in the Raw Material Passports as provided by the supplier are hereby directly assessed.

2.1.2 Calculation of the Circular-in content

The Circular-in content is expressed as a percentage of the mass of the recycled raw material used to the total mass of the supplied raw material.

Per raw material the calculation of the Circular-in content is as follows:

$$X(\%) = A / T * 100$$

Where:

X is the Circular-in content, expressed as a percentage;

A is the mass of recycled material;

T is the total mass of the raw material.

If for a component more than one recycled content is given, the lowest percentage is taken into account. Examples of more than one recycled content:

- A supplier declares a range of recycled content for 1 product.
- More than one supplier is used for the same component and it cannot be made clear in which product a component of which supplier is used.

2.1.3 Documentation required for determining the Circular-in content

To determine the Circular-in content the following documentation is required:

1. Third party independent certificate(s) to be provided by the supplier of the raw materials and/or incoming goods of each part of the product, confirming that the provided raw materials and/or incoming goods consist of the amount of Circular-in content as specified by the supplier. Accepted supplier documentation is listed in Annex IV.
2. Material recipes (/ data sheets) from the material batches used for the manufacturing of the product which include the Circular-in content recovered from waste according to the product related standards.
3. 12 Months of historical data preceding an audit showing traceability according to EN 15343:
 - Received loads. Recycled materials shall be traceable to suppliers having 3rd party certificates as listed in Annex IV, showing the material name and its Circular-in content;
 - If the certificate holder is also the recycler, then the recycling process shall be certified separately from the production process of the product to provide information for traceability of Circular-in content.
 - Amount of raw material(s) entering the production process must be traceable to incoming loads per production stage;
 - Amount of raw material(s) used in manufacturing process, including scrap.

2.1.4 Requirements for certification of Circular-in content

1. The material(s) from which the product is made shall be, for the percentage of Circular-in content, retrieved from a third party certified recycler;
 - 1.1. For recycled content the percentage shall be certified on a minimum per batch and not per period.
 - 1.2. For Biobased the percentage may be certified per average determined over a certain period of time (average mass balance).
2. Mass balance calculations according to clause 2.1.2 shall be available per requested period within or over the year of review by which Circular-in content according recipe is evaluated;
 - 2.1. For recycled content the product shall continuously contain the recycled content as claimed.
 - 2.2. For Biobased content the mass balance may be calculated over a period of production.
3. Quality check procedures and registrations shall be available for incoming loads, production and final product;
4. Identification of incoming loads, production batches and final product shall be implemented in order to enable traceability.

2.1.5 Procedure for verification of Circular-in content claim

An initial investigation and yearly surveillance inspections will be executed to verify the required documentation and requirements to be met.

The inspections will be preceded by:

1. the questionnaire, in Annex I.
2. calculation sheet(s), example given in Annex II.

The questionnaire and the calculation sheet shall be filled in and returned before the inspection. During the inspections, the claim(s) for Circular-in content will be verified by means of checking the documentation and the requirements, the registrations as well as the information provided per the questionnaire and the calculation sheet(s).

2.2 Determination of Recyclability: basic principle and determination methods

2.2.1 Basic principle

Waste ceases to be waste when it has undergone a recovery operation (including recycling) and complies with specific criteria, in particular when:

- the substance or object is commonly used for specific purposes;
- there is an existing market or demand for the substance or object;
- the use is lawful (substance or object fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products;
- the use will not lead to overall adverse environmental or human health impacts.

The certificate holder shall describe the methodology and provide the commercial routing available showing the Recyclability according to related standards such as CEN/TR 13688:2008, IEC/TR 62635:2012 or NEN-EN 13430.

2.2.2 Calculation of the Recyclability

The Recyclability is expressed as a percentage of the mass of the recyclable material used to the total mass of the product.

1. The product consists of one type of material:
 $Y(\%) = P * 100$
Where:
Y is the Recyclability, expressed as follows;
P = 1,0 if the material can be recycled to a material;
P = 0,0 if the material is not recyclable.

If a cable is recycled by a recycler, this does NOT mean that the cable and its constituent parts are inherently recyclable. It must be clearly demonstrated that the individual components will be reused. Therefore, if only the copper is repurposed, only the copper can be considered recyclable. The recycler must specify what happens to each of the individual components

2.2.3 Documentation required for determining the Recyclability

The certificate holder is able to describe the product and its components.

The certificate holder is able to show a recycling process exists showing:

1. The method of sorting the product for recycling;
2. The recycling process to dismantle the product and recycle its components into useable raw materials;
 - o If the product consists of several components, the Recyclability must be shown per each component. If a component becomes not recoverable, this will impact the level of Recyclability.
3. Existing economical use of recovered material including the level of use:
 - o Usage for similar product;
 - o Usage for products that require a lower spec.

2.2.4 Requirements for certification of Recyclability

1. The certificate holder can show that each step in a recycling process for the product is technically and economically feasible;
2. The certificate holder can show that such processes are available and operated on a commercial scale;
3. The certificate holder can show that the recycled materials are used for the manufacturing of new products.

2.2.5 Procedure for verification of Recyclability claim

An initial investigation and yearly surveillance inspections will be executed to verify the required documentation and requirements to be met.

The inspections will be preceded by:

1. A questionnaire for Recyclability, see Annex III;
- The questionnaire shall be filled in and returned before the inspection. During the inspections, the claim(s) for Recyclability will be verified by means of checking the documentation and the requirements, the registrations as well as the information provided per the questionnaire.

2.3 Determination of Low Carbon footprint

2.3.1 Basic principle

Low Carbon production methods are maintained to improve the environmental footprint of specific materials, which reduces the environmental footprint of a product. Carbon emissions of the production of metals can be lowered by replacing fossil based energy with renewable based energy and/or replacing primary with secondary/recycled content.

This covenant excludes secondary/recycled content from the definition of Low Carbon metals since this should be reported separately as Circular-in.

- **Renewable energy based production:** The electrified production process fueled by renewables. Valid renewable energy sources are defined by EU Taxonomy.

- **Circular-in content:** refers to the replacement of primary with secondary/recycled content. When Low Carbon is solely based on circular content, this for example counts as '*aluminium with circular-in (%)*' and not as '*Low Carbon aluminium with circular content*' or '*Low Carbon aluminium without circular content*'.

2.3.2 Documentation required for determining the Low Carbon footprint

To determine the Low Carbon footprint an EPD report based on an LCA is needed.

2.3.3 Requirements for certification of Low Carbon

The EPD and LCA shall be evaluated by an independent third party. Accepted documents are mentioned in Appendix IV.

2.3.4 Procedure for verification of Low Carbon claim

An initial investigation and yearly surveillance inspections will be executed to verify the required documentation and requirements to be met.

3 Verification and confirmation of the circularity data

3.1 Verification and confirmation of Circular-in content

1. The certificate holder shall present information for the Circular-in content claim according to the determination methods of chapter 2.1;
2. Kiwa shall verify the data and information presented and confirm the Circular-in content claim according to 2.1.5.

3.2 Verification and confirmation of Recyclability

1. The certificate holder shall present information for the recyclability claim according to the determination methods of chapter 2.2;
2. Kiwa shall verify the data and information presented and confirm the Recyclability claim according to 2.2.5.

3.3 Verification and confirmation of Low Carbon footprint

3. The certificate holder shall present information for the Low Carbon footprint claim according to the determination methods of chapter 2.3;
4. Kiwa shall verify the data and information presented and confirm the Low Carbon claim according to 2.3.4.

4 Marking

The Kiwa Covenant logo (see below) may be used in connection with the raw materials passport in documentation, websites, leaflets, etc.



RMP = Raw Material Passport

And/or:



GSP = Grondstoffenpaspoort

5 Quality management system requirements

5.1 General

The certificate holder's quality management system must comply to the by the network operators required standard quality management system (*not to be assessed within the scope of this Covenant*).

Requirements imposed on the specific production and data processes related to the declared circularity aspects in the raw material passports are included in this chapter.

5.2 Internal quality control/quality plan

The certificate holder must have an implemented and operational internal quality control scheme (IQC-scheme) in place for the control of the specific production and data processes related to the declared circularity aspects in the raw material passports.

This IQC-scheme shall be derived from the example format as shown in Annex V. The scheme must be detailed in such a way that it provides Kiwa sufficient confidence that the requirements of this Covenant are continuously fulfilled.

6 Initial inspection and continuous surveillance by Kiwa

6.1 Summary of investigations and inspections

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

1. Initial investigation;
2. Yearly surveillance inspections;
3. Control of the certificate holder's IQC-scheme.

6.2 Assessment Matrix for validation of circularity data from material passport

Table 1 Assessment Matrix

Description of requirements	Clause Covenant	Investigation within the scope of:	
		Initial investigation	Inspections ²⁾
Verification and confirmation of Circular-in content	3.1	X	X ¹⁾
Verification and confirmation of Recyclability	3.2	X	X
Verification and confirmation of Low Carbon footprint	3.3	X	X
Marking	4	X	X
Quality management system requirements	5	X	X

1. In case the production or data processes changes significantly, the verification requirements as laid down in the IQC-scheme shall be determined again.
2. During the inspection visit, the inspector shall check the declared circularity aspects in the raw material passports for a selection of by the certificate holder verified production batches. The frequency of the inspection visits is recorded in clause 7.3 'Nature and frequency of external inspections'.

6.3 Inspection of the quality system

The quality system will be checked by Kiwa on the basis of the IQC scheme (see par. 5.2).

6.4 Changes in the Raw Material Passports

Major changes in the Raw Material Passports need to be reported by the supplier to Kiwa before the final Raw Material Passports are sent to the energy network operators.

Major changes are defined as follows:

- declaration of circularity data for material(s) and/or product types not yet assessed by Kiwa;

Minor changes are:

- all other changes with regard to update of circularity data of materials and product types already assessed by Kiwa.

In the case of major changes, it will be assessed by Kiwa whether a separate application for approval of the changes is required.

Minor changes will be assessed during the yearly inspection audit(s).

7 Agreement on the implementation of certification

7.1 General

In addition to the requirements included in this Covenant, the general rules for certification as included in the Kiwa Regulations for Certification also apply.

In particular, these are:

- The general rules for conducting the initial evaluation to be distinguished in:
 - the way certificate holders are to be informed about how an application is handled;
 - how the tests and verifications are conducted;
 - the decision to be taken as a result of the pre-certification tests;
- The general directions for conducting inspections and the aspects to be audited;
- The measurements to be taken by Kiwa in case of Non Conformities;
- Measurements 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 measurements taken by Kiwa.

7.2 Report initial investigation

Kiwa records the results of the initial investigation in a report. This report shall comply with the following requirements:

- completeness: the report's verdicts about all requirements included in the Covenant;
- traceability: the findings on which the verdicts have been based shall be recorded in a traceable manner;
- basis for decision: the decision maker shall be able to base his decision on the findings included in the report.

7.3 Nature and frequency of external inspections

Kiwa shall carry out inspections at the certificate holder's site to investigate whether the obligations are met. At the time of validation of this Covenant this frequency has been fixed at 1 inspection visit per year.

Inspections shall invariably include:

- The IQC-scheme of the certificate holder and the results of calculations carried out by the certificate holder;
- The correct use of marking;
- The compliance with the requirements according to chapter 2 and 3.

The findings of the inspection visits performed shall be traceably recorded, by the certification body, in a report.

7.4 Sanction policy

The sanction policy is available through the service page on the website of Kiwa.

The weighing of the non-conformities is as follows:

- A major non-conformity is applicable in case the claim in the raw material passport cannot be verified (by e.g. insufficient evidence according to chapter 3) and in case the claim in the raw material passport is not confirmed by the evidence presented; The certificate holder will correct the raw material passport and will notify customers to whom may have been delivered products with a wrong (too high %) circular claim in the passport. If a non-conformity persists the certificate will be withdrawn.
- All other non-conformities observed are to be regarded as minor non-conformities.

See for further explanation and guidance regarding minor and major non-conformities the above-mentioned sanction policy.

8 Titles of standards

8.1 Public legislation

Law/regulation	Title	Version
2008/98/EC	Waste Framework Directive	2008

8.2 List of normative documents

Standard ¹⁾	Title	Version
NEN-EN ISO/IEC 17020	Conformity assessment - General criteria for the operation of various types of bodies performing inspection	2012
NEN-EN ISO/IEC 17021	Conformity assessment - Requirements for bodies providing audit and certification of management systems	2015
NEN-EN ISO/IEC 17065	Conformity assessment - Requirements for bodies certifying products, processes and services	2012
NEN-EN-ISO 14021	Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling)	2016
ISO 16620-1:2015	Plastics — Biobased content — Part 1: General principles	2015
NEN-EN-ISO 14025	Environmental labels and declarations - Type III environmental declarations - Principles and procedures	2010
NEN-EN-ISO 14040	Environmental management - Life cycle assessment - Principles and framework	2006
ISO/IWA 19	Guidance principles for the sustainable management of secondary metals	2017
ISO/CD 59014	Secondary materials — Principles, sustainability and traceability requirements	Under development
NEN-EN 15343	Plastics - Recycled Plastics - Plastics recycling traceability and assessment of conformity and recycled content	2007
NEN-EN 10204	Metallic products - Types of inspection documents	2004
NEN-EN 13430	Packaging - Requirements for packaging recoverable by material recycling	2004
NEN EN 45557	NEN EN 45557. 1.General method for assessing the proportion of recycled material content in energy-related products	2020
NEN-ISO 15270	Plastics - Guidelines for the recovery and recycling of plastics waste	2008
NEN-ISO 22095	Chain of custody - General terminology and models	2020
CEN/TR 13688	Packaging - Material recycling - Report on requirements for substances and materials to prevent a sustained impediment to recycling	2008
IEC/TR 62635	End of life Recyclability calculation for electrical and electronic equipment	2012
NEN-EN-IEC 62542	Environmental standardization for electrical and electronic products and systems - Glossary of terms	2013
2008/98/EC	Waste Framework Directive (consolidated version)	2008
Kiwa Manual K15013	Kiwa Covenant for products and processes	2022

- 1) The documents, in whole or in part, are normatively referenced in this document. For dated references, only the edition cited applies. For undated references, the latest edition of the reference document (including any amendments) applies.

Annex I – Questionnaire for Circular-in content

1. Is a procedure in place for registration and records archived for at least 12 months to be able to fulfil the requirements of this Annex;
2. Are records available for all materials received showing name and address of supplier and supplier certificate (or other document confirming the recycle origin if applicable), batch info including material type, amount/weight, specification, date received;
3. Is a stock management system in place to identify goods coming in, stored and released traceable towards incoming batch and sold batch;
4. Are product recipes maintained describing the amounts of materials used per unit (product);
5. Is a registration in place showing material batches processed per final batch produced including:
 - a. Produced quantities;
 - b. Rejected, scrapped quantities.
6. Are the production logs available to confirm the above mentioned produced and rejected/scrapped amounts;
7. Does the certificate holder perform a volume reconciliation showing per desired period (month or year for the last 12 months) how much of which material is received, consumed per product (type) and the amount of product and rejects/scraps made;
8. Does the volume reconciliation show that purchased amounts exceed produced amount considering stock differences at the start and finish of a period;
9. Is a registration in place for all product batches sold;
10. Is a registration in place of all rejected and other material discarded off and re-used;
 - a. Product (materials) re-used will only be considered recycling for the part initially made from recycled material.
11. Is an independent inspector able to verify above mentioned items for the whole period of evaluation by selection of individual batches.
 - a. During the factory tour;
 - b. Administratively per record keeping.

Annex II – Calculation model Circular-in content – example

Determination per recipe:

Circular-in content		
Material <PE>	weight <gram>	Circular-in content
Component A	50	50.0%
Component B	50	100.0%
% total recycle content for <PE>	100	75.0%

Determination per produced amount per period per material and totalized:

<PE>	Tons consumed	of total	Circular-in content	content share
supplier 1	312.0	67%	55.0%	36.7%
supplier 1	156.0	33%	45.0%	15.0%
supplier 2		0%	0.0%	0.0%
supplier 3		0%	0.0%	0.0%
Total	468.0			52%

Annex III – Questionnaire for Recyclability

Preface to the subjects:

The certificate holder substantiates the proof as requested in this Annex by means of certificates, descriptions, commercial companies acting as collectors, sorters, recyclers which are located in Europe such that they can act for as intended here.

- Example: a recycler in Asia is not applicable unless made reasonable considering environmental reasons (low scale high value recovery versus transport costs).
- Example: If a collection system is well introduced and operational but for convenience like cost versus virgin or other reasons not fully used, nevertheless this system may be considered as proof.

If a system is mentioned, a commercial or general community operated process is mentioned able to execute accordingly.

- A collection system in Spain is not to be considered representative for the Netherlands.

Recycling processes that are not commercial / industrial yet are not to be considered.

- It is foreseeable that in near future more and more complex products will be recycled and laboratory scale recycling has proven adequate. This is not to be considered as an existing process.

1. Describe the collection system for collection of the product when it reaches end of life for any reason such as mechanical or economical end of life or malfunction.
2. Describe how the product is recovered from the collection, how it is able to be recycled and how it is prevented that the product or its components is/are brought to a landfill, incineration or energy production.
3. Describe (if applicable) the dismantling process of any kind like shredding and next separating/sorting or detaching first before shredding, in case of multi material products.
 - If a material A is lost during recovering of another material B, then the Recyclability of A is considered 0%. Example: PVC mantle of an electric cable is lost during recovering of the copper.
4. Describe the recycling process and which raw materials will become available and for which applications they are used.
 - Comment: see also the Waste Framework Directive, a market shall exist otherwise material may end up for incineration or other way of disposal.
5. Describe by best knowledge that in the foreseeable future the use of recycled material will be ended due to legislations like REACH.
 - Example: for PVC new European legislation (2023) prevents recycled PVC entering the market if containing more than 1,5% lead.

Annex IV – Third party accepted certificates

Acceptance of supplier documents as mentioned below:

- Documents must be updated yearly. The **last** version will be applicable for the declaration in the Raw Material Passport.
- In case documents state a range of Circular-in content, for example claimed 5% to 10%, the lowest value will be applicable being the guaranteed minimal amount.

Recycled Content

For plastics

% recycled content to be based on actual presence in “each” product. Mass balance based percentages are not allowed.

- Recyclclass : [Recycling Process – RecyClass](#)
- Eucertplast : [European Certification of Plastics Recyclers | EuCertPlast](#)
- Corepla : <http://www.corepla.it/>
- Blue Angel : [Blue Angel | The German Ecolabel \(blauer-engel.de\)](#)
- PolyCert : [Certification schemes | PolyCert Europe](#)
- Kiwa : Certification according to a Covenant

For metals:

% recycled content to be based on actual presence in “each” product. Mass balance based percentages are not allowed.

- Declaration of Honour
 - A Declaration of Honour is accepted for up to following percentages:
 - Copper (conductor): 50%
 - Steel general application: 50%
 - Steel as part of functional component (transformer core); 15%
 - Aluminium (cable conductor): 10%
 - Aluminium (transformer conductor) 15%
- EPD : Environmental Product Declaration on the basis of NEN-EN-ISO 14025 (Type III declaration) issued or reviewed by an independent third party including the amount of recycled content declared.
- LCA : Lifecycle analysis on the basis of ISO series 14040 and issued or reviewed by independent third party and the amount of recycled content declared specifically.
- Specific third party certifications:
 - Kiwa Nederland B.V. : Certification according to a Covenant

Oil:

- A Declaration of Honour accompanied by a certification that confirms the process being operated. For example an ISO 9001 certificate with recycling as certification scope.

Biobased content

For plastics

- bio-attributed plastics (biobased), is accepted if ISCC Plus certified. Mass balance is accepted - ISCC PLUS – ISCC System (iscc-system.org)

Low Carbon footprint

- EPD : Environmental Product Declaration on the basis of NEN-EN-ISO 14025 (Type III declaration) issued or reviewed by an independent third party.

- LCA : Lifecycle analysis on the basis of ISO series 14040 and issued or reviewed by independent third party and the amount of recycled content declared specifically.

Annex V – Model IQC scheme

Inspection subjects	Inspection aspects	Inspection method	Inspection frequency	Inspection registration
Raw materials supplied: - recipe sheets - 3 rd party certificates from the raw material supplier	- correct raw material delivery - proof of recycled material	- document check - document check	- each delivery - each delivery	- in QMS - in QMS
Production process: - Weighing and mixing of raw materials	- percentage of Circular-in content	- weighing registrations - mixing calculation(s)	- Continuous - Per production batch	- in QMS / quality control card(s) - in QMS / quality control card(s)