



Bio-based content interpretation document N° 1

Date 2019-07-17

Supersedes -

Explanation Interpretations responding to queries from the market

This document provides interpretations of requirements related to the following documents:

EN 16785-1:2015, *Bio-based products – Bio-based content – Part 1: Determination of the bio-based content using the radiocarbon analysis and elemental analysis*

NCS 16785:2016-11, *Bio-based content certification scheme*

The interpretations given in this document are mandatory and the interpretations shall be followed by organizations that wish to become or remain Bio-based content certified, if they have been formulated in a normative way.

Version	Date	Interpretations
N° 1	2019-07-17	NCS 16785:2016-11: Clause 3, 5.1, 5.5.1, 5.5.3 (new), 5.6.3, 5.6.4, 6.6.1, 7.2.1, 7.2.2, 8.2.1, 8.3, C.2, Bibliography

EN 16785-1:2015, Bio-based products – Bio-based content – Part 1: Determination of the bio-based content using the radiocarbon analysis and elemental analysis

1 Scope

[No interpretation]

2 Normative references

[No interpretation]

3 Terms and definitions

[No interpretation]

4 Symbols and abbreviations

4.1 Symbols

[No interpretation]

4.2 Abbreviations

[No interpretation]

5 Principle

5.1 Product groups

[No interpretation]

5.2 Group I products

[No interpretation]

5.3 Group II products

[No interpretation]

5.4 Natural products

[No interpretation]

6 Rules for allocation of elements

[No interpretation]

7 Group I products

7.1 Statement

[No interpretation]

7.2 Sampling

[No interpretation]

7.3 Determination of the bio-based carbon content and elemental composition

7.3.1 Procedure

[No interpretation]

7.3.2 Variability of test results

[No interpretation]

7.4 Validation criteria of the bio-based content

[No interpretation]

7.5 Examples of application of the decision scheme

[No interpretation]

7.6 Test report

[No interpretation]

8 Group II products

8.1 Statement

[No interpretation]

8.2 Sampling

[No interpretation]

8.3 Determination of the bio based carbon content

8.3.1 Procedure

[No interpretation]

8.3.2 Variability of test results

[No interpretation]

8.4 Validation criteria of the bio-based content

[No interpretation]

8.5 Example of application of the decision

[No interpretation]

8.6 Test report

[No interpretation]

Annex A (informative) Standardized sampling methods

[No interpretation]

Annex B (informative) Example of format for reporting results for Group I products

[No interpretation]

Annex C (normative) Calculation of the bio-based carbon content and bio-based content for Group II products

C.1 Calculation of the bio-based carbon content

[No interpretation]

C.2 Calculation of the bio-based content

[No interpretation]

Annex D (informative) Example of format for reporting results for Group II products

[No interpretation]

Bibliography

[No interpretation]

NCS 16785:2016-11, Bio-based content certifications scheme

1 Scope

[No interpretation]

2 Normative references

[No interpretation]

3 Terms and definitions

[Version N° 01] Because the definition of 'natural product' deviates from the one used in EN 16785-1:2015, the definition for 'natural product' for bio-based content certification is added and read as follows:

3.7

natural product

product wholly derived from biomass that may have undergone a non-chemical or non-biological modification process

Note 1 to entry: Examples of non-chemical or non-biological modification processes are distillation, extraction or similar separation methods.

NOTE See also interpretations to 5.1 and 5.6.4.

4 Organization of the certification system

4.1 Principle

[No interpretation]

4.2 Organizational structure

[No interpretation]

4.3 Applicant

[No interpretation]

4.4 Testing laboratory

[No interpretation]

4.5 Certification body

[No interpretation]

4.6 Committee of Experts

[No interpretation]

4.7 Changes

[No interpretation]

5 Method of assessment

5.1 General

[Version N° 01] It is stated that products can be sorted out in two groups. In principle, natural products can also be considered as a group. As stated, natural products can be used to produce Group I products or as constituent(s) of Group II products. Natural products shall only undergo ¹⁴C analysis based on total organic carbon. Their statement shall be done by use of the bio-based content analysis by using data obtained from suppliers as described in 5.5.3, provided that the bio-based content of the natural product is analysed in accordance with this method.

NOTE 1 See interpretation to Clause 3 concerning definition of 'natural product'.

NOTE 2 See this interpretation document for new 5.5.3.

[Version N° 01] In the case an organization modifies, without chemical or biological reaction, an externally provided product that is "Bio-based content" certified, the modified product shall be considered a Group II product and shall be assessed in accordance with the applicable requirements of NCS 16785:2016-11.

NOTE 3 This means that an organization cannot endorse the "Bio-based content" certification from its supplier.

EXAMPLE Printing ink on a bio-based packaging is considered a modification of the packaging, as the composition of this packaging and with that the percentage of the bio-based content associated with this packaging can change depending on the composition of the ink and the ratio of the ink used to the packaging. For example, if a 100 % bio-based product is printed, the amount of ink needs to be considered in the statement for the bio-based carbon content if the ink is not "Bio-based content" certified.

5.2 Calculation of the bio-based content

5.2.1 General calculation method

[No interpretation]

5.2.2 Calculation for combined materials and/or assembled products

[No interpretation]

5.3 Information for analysing the sample

[No interpretation]

5.4 Sampling and analysis

[No interpretation]

5.5 Information for application for certification

5.5.1 Group I products

[Version N° 01] The applicant needs to provide as statement that includes the chemical structure of the product. In the case of a mixture of natural products, it might be possible that the exact brute structural formula is not known. In this case, the applicant may use an average brute structural formula.

NOTE 1 Applying an average brute structural formula can influence the confidence level.

NOTE 2 See also interpretation to 5.6.4.

5.5.2 Group II products

[No interpretation]

5.5.3 Natural products

[Version N° 01]

NOTE This is a new subclause.

The applicant shall provide at least the following documented information to the certification body when applying for an assessment for natural products:

- a) general information about the organization (name, contact details, legal entity);
- b) the statement of the bio-based carbon content and the bio-based content in accordance with Annex A, and statement about non-chemically modification (see. 5.6.4), if applicable;
- c) the different constituents of the formulation of the product, its origin(s);
- d) the technical data sheet or a description of the product (at least the bio-based components and their participation to the overall formulation);
- e) the test reports of the ¹⁴C analysis obtained from authorized laboratories;
- f) in case of product family, a description of the composition of the products, if applicable, that make part of the product family (e.g. density level, purity level, chain length, molecular weight).

5.6 Validation methodology by certification

5.6.1 Use of test reports

[No interpretation]

5.6.2 Validation methodology for Group I products

[No interpretation]

5.6.3 Validation methodology for Group II products

[Version N° 01] Group II products can consist of constituents that can be classified as natural product, Group I product or non bio-based product. The overall validation methodology for Group II products depends on the classification of the constituents:

- 1) In case a Group II product contains one or more constituents that are classified as natural product, these constituents need not to be certified separately for determining the bio-based content of this Group II product. The applicant shall provide the certification body with the statement (i.e. 100 % bio-based) and the test report about the ¹⁴C ratio based on the total organic carbon for each constituent classified as natural product.
- 2) In case a Group II product contains one or more constituents that are classified as Group I product, these constituents shall be certified separately in accordance with 5.5.1 and 5.6.2 in order to be taken into account in determining the bio-based content of this Group II product.
- 3) In case a Group II product contains one or more constituents that are classified as non bio-based product, the applicant shall provide the certification body with the statement, test report about the ¹⁴C ratio based on the total organic carbon, and the test report about the elemental analysis for each constituent classified as non bio-based product.

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NOTE The elemental analysis for non bio-based products is needed to calculate the bio-based content, which is based on the percentage of the total mass of the product.

5.6.4 Validation methodology for natural products

[Version N° 01] It is stated that certification of natural products in the framework of this certification scheme is only possible if the certification body receives the statement and necessary test reports of the applicant. For natural products, the definition used in this certification scheme shall be used. This implies that certification of natural products is also possible if the applicant provides the certification body with the statement that the natural product is not chemically or biologically modified and with the test report about ¹⁴C ratio.

NOTE See interpretation to Clause 3 concerning definition of 'natural product' and interpretation to 5.1 introducing 'natural products' as third group.

6 Certification procedures

6.1 Certification criteria

[No interpretation]

6.2 Validity of certificate

[No interpretation]

6.3 Surveillance

[No interpretation]

6.4 Renewal of certificate

[No interpretation]

6.5 Changes to certified product or product family

[No interpretation]

6.6 Sublicences

6.6.1 Use of other certificates

[Version N° 01] Sublicences may only be agreed if a legal link exists between the owner of the original certificate and the sub-licensee. In the case a sub-licensee has another third-party production facility, this production facility shall either have an own sublicense with the owner of the original certificate or shall explicitly be part of the sublicense of the other company.

6.6.2 Withdrawal of right to use the other certification

[No interpretation]

7 Reporting of the certification body

7.1 General

[No interpretation]

7.2 Requirements for the certificate

7.2.1 Certificate statement

[Version N° 01] The "bio-based content" certificate includes the percentage of bio-based carbon content of the product or product family, related to total carbon. EN 16848 specifies requirements for transparent and non-misleading business-to-business communication of characteristics of bio-based products by means of a specific data sheet. The applicant can use the percentage of the bio-based carbon content that is stated on the certificate on this specific data sheet.

NOTE 1 EN 16848 is intended to be used as a tool to generate and transfer information in the value chain and/or as an input for product-specific standards and certification schemes.

NOTE 2 In business-to-consumer communication, as specified in EN 16935, the percentage of bio-based carbon content is not required to be communicated.

7.2.2 Reporting

[Version N° 01] The certification body needs to provide a summary report with a minimum set of information to be made publicly available. The certification body shall also provide the percentage of bio-based carbon content.

NOTE 1 Making the percentage of the bio-based carbon content publicly available supports the transparent and non-misleading business-to-business communication, as specified in EN 16848 and addressed in the interpretation to 7.2.1.

NOTE 2 The register of certificate holders as maintained at the web portal www.biobasedcontent.eu only displays the (minimum) percentage of bio-based content. The percentage of bio-based carbon content can be obtained by downloading the certificate associated to the certificate holder or by linking to the register maintained by the certification body that issued the certificate.

7.3 Objection, appeal, suspension and/or deregistration

[No interpretation]

8 Use of "bio-based content" label and "bio-based" logo

8.1 Label and logo

8.1.1 General

[No interpretation]

8.1.2 Visual appearance of "bio-based content" label

[No interpretation]

8.1.3 Visual appearance of "bio-based" logo

[No interpretation]

8.1.4 Values displayed in the label

[No interpretation]

8.2 Conditions of use of label and logo

8.2.1 Use of "bio-based content" label

[Version N° 01] In business-to-business relations, the label may be applied on accompanying documents among other things. Accompanying documents can include portfolio and presentations as long as there is a clear link with the certified product. In cases where there is no clear link between an accompanying document and the certified product, the certificate holder shall use the "bio-based" logo if it decides to use a visualization related to "bio-based content" certification (see 8.2.2).

8.2.2 Use of "bio-based" logo

[No interpretation]

8.3 Assessment correct use of label and logo by certification body

[Version N° 01] It is stated that the certificate holder can ask for approval of changes in use of label of logo in between assessment. Considering that this approval process is already optional, the certificate does not need to ask for this approval and can await the regular assessment.

NOTE This option creates unnecessary administrative burden for both certificate holder and certification body.

8.4 Monitoring improper use of label and logo by scheme manager

[No interpretation]

Annex A (normative) Calculation of bio-based carbon content and bio-based content for Group II products

A.1 Calculation of the bio-based carbon content

[No interpretation]

A.2 Calculation of the bio-based content

[No interpretation]

Annex B (informative) Example of bio-based content and the elemental composition of the product

[No interpretation]

Annex C (normative) "Bio-based content" label and "bio-based" logo – visual representation

C.1 Shape and size

[No interpretation]

C.2 Colour

[Version N° 01] The label and logo may be used in black-and-white configuration. When using a black-and-white configuration, the green colour may be black and the white colour may be either white or transparent. The black-and-white configuration may be used in both business-to-business and business-to-consumer communication.

NOTE The use of the coloured label and logo is preferred over the black-and-white configuration. For this reason, only the coloured configuration is provided to an organization after certification; the black-and-white configuration will only be provided at request.

C.3 Font

[No interpretation]

Bibliography

EN 16848, *Bio-based products — Requirements for business-to-business communication of characteristics using a data sheet*

EN 16935, *Bio-based products — Requirements for business-to-consumer communication and claims*