ENplus®

Quality Certification Scheme

For Wood Pellets

Guidelines

ENplus® G 1: 2018

Pellets Bag Design - Requirements

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European Pellet Council (EPC) / European Biomass Association (AEBIOM)

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FOREWORD

The European Pellet Council (EPC) is an umbrella organisation founded in 2010, representing the interests of the European wood pellet sector. Its members are national pellet associations or related organisations from 16 countries. The EPC is an organisational part of the European Biomass Association (AEBIOM).

The EPC is a platform for the pellet sector to discuss the issues that need to be managed in the transition from a niche product to a major energy commodity. These issues include standardisation and certification of pellet quality, safety, security of supply, education and training, and the quality of pellet using devices.

In this regard, EPC coordinates the development of the ENplus® quality certification scheme and is constantly adapting this system according to market needs (e.g. sustainability aspects).

This document was developed by EPC in consultation with the National Licensers working on the ENplus® scheme.

This document comes into force as of the date of its publication, on 20th of February 2018. Starting with this date, all bag designs submitted to the respective *Competent Management* for approval shall comply with the requirements of this document.

Certified companies with already approved bag designs shall ensure compliance with this document by 20th of August 2018 and apply for approval of a revised bag design in case of non-conformity with the document. The compliance is regularly evaluated at the time of the ENplus® annual inspections.

INTRODUCTION

The key objective of the ENplus® scheme is to create and implement an ambitious and uniform certification system for wood pellets that will be used by the heat market. The ENplus® *Logo* allows pellet quality to be communicated to customers and consumers in a transparent and verifiable way. The term ENplus®, as well as the ENplus® *Logo*, are registered as international trademark under the Madrid Agreement and Protocol by the International Bureau of the World Intellectual Property Organization (WIPO) and as a Community Trademark (CTM) with the European Union Intellectual Property Office (EUIPO).

Wood pellets are a renewable fuel, produced mainly from sawmill residues. Wood pellets are used as a fuel for residential heating systems as well as for industrial burners. They are a refined fuel that can be damaged during handling. Hence, quality management should cover the whole supply chain, from the choice of raw material to their final delivery to the end-user.

The term “shall” is used, throughout this document, to indicate those provisions that are mandatory. The term “should” is used to indicate those provisions which, although not mandatory, are expected to be adopted and implemented. The term “may” used throughout this document indicates permission expressed by this document, whereas “can” refers to the ability of a user of this document or to a possibility open to the user.

Certain terms in this document are capitalised and italicised to indicate that they have been defined by the chapter “Terms and definitions” of this document and in the ENplus® Handbook, version 3.0, Part 1.

1 SCOPE

This document includes mandatory requirements for ENplus® certified pellet producers and traders regarding the approval of a pellet bag design showing the ENplus® seal.

This document is based on and extends the requirements of the ENplus® Handbook, version 3.0, Part 2, relating to the requirements for bag designs showing the ENplus® seal.

2 NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document:

ENplus® Handbook, version 3.0, Part 1, *General*
ENplus® Handbook, version 3.0, Part 2, *Certification Procedures*
ENplus® Handbook, version 3.0, Part 3, *Pellet Quality Requirements*
ENplus® G 2, *Translations of the Pellets Bag Design – Informative guidance*

For dated references, only the relevant edition applies. For undated references, the latest edition of the referenced document (including any amendment) applies.

3 TERMS AND DEFINITIONS

For the purposes of this document, the terms and definitions described in the ENplus® Handbook, version 3.0, Part 1, apply together with the following definitions.

3.1 CERTIFIED COMPANY

A company that holds a valid ENplus® certificate (issued by a *Competent Certification Body*), has signed, and meets the terms of the respective ENplus® licensing contract with the *Competent Management*. All *Certified Companies* (producers, traders, and service providers) are listed on the international ENplus® website [www.enplus-pellets.eu], as well as on the respective national websites.

[SOURCE: ENplus® Handbook, version 3.0, Part 1, modified]

3.2 COMPETENT MANAGEMENT

The *Competent Management* is the *International Management* or a *National Licenser*.

Note: Definitions of the *International Management* and the *National Licenser* are included in the ENplus® Handbook, version 3.0, Part 1.

3.3 PELLET BAG

A pellet bag is a packaging unit for the retail market that contains up to 30 kg of pellets of the quality classes ENplus A1® or ENplus A2®.

Note: Bagging pellets of quality class ENplus B® is not allowed.

3.4 BIG BAG

A *Big Bag* (aka. big bulk bag) is a bag made from plastic mesh and contains a batch of pellets weighing between 30 and 1.500 kg. Two categories of *Big Bag* are considered within the ENplus® scheme: *Sealed Big Bags* and unsealed *Big Bags*.

[SOURCE: ENplus® Handbook, version 3.0, Part 1, modified]

3.5 SEALED BIG BAG

A *Sealed Big Bag* is a bag sealed with a seal (on the filling level) that can be traded as a small pellet bag. Where a *Sealed Big Bag* is sold to a non-certified trader or an end-user, the information required for *Bagged Pellets* shall be attached to the bag. The information shall be approved by the *Competent Management*.

4 BAG DESIGN APPROVAL

4.1 The *Certified Company* whose ENplus® *ID* is printed on the bag shall provide a facsimile of each bag design to the *Competent Management* for approval, whether the bag design is the *Certified Company's* own brand or not. The facsimile shall show both the front and back of the bag unless the back of the bag is blank, in which case this shall be made clear in the request for approval.

The bag design facsimile shall be submitted in a high-quality format and resolution that could allow the *Competent Management* to publish the approved bag design at its website.

Note 1: The *Competent Management* is the ENplus® governing body responsible for the certification of the *Certified Company* whose ENplus® *ID* is a part of the bag design.

Note 2: The approval of the bag design shall be officially validated through a written confirmation, issued by the *Competent Management*, and includes the approved bag design (e.g. official approval document, publication on the ENplus® website).

Note 3: The availability of the formal approval for all bag designs used by the *Certified Company* shall be evaluated during the ENplus® annual inspections.

4.2 The *Certified Company* shall submit a request for approval before the foil may be printed.

4.3 The submitted bag design shall comply with the requirements of this document and the ENplus® Handbook. Where a bag design complies with the requirements, the *Certified Company* receives an official approval issued by the *Competent Management*. Where the submitted bag design does not comply with the requirements, the *Certified Company* may correct the bag design during the approval process based on a request of the *Competent Management*.

4.4 Where the *Certified Company* allows the use of the approved bag design by another company, it shall remain solely responsible for the compliance with the ENplus® requirements and have an enforceable mechanism to ensure that compliance.

5 BAG DESIGN REQUIREMENTS

5.1 GENERAL REQUIREMENTS

5.1.1 All information to be included on the bag design shall be printed on the bag directly and shall be clearly readable (see *Figure 1: Illustration of a bag design*).

Note: The use of stickers containing the required information (including the *Quality Seal*) or the addition of information not appearing in the design (e.g. hand-written notes) to the bag label is not allowed.

5.1.2 Information included in the bag design shall be displayed in the languages of the countries in which the pellets are to be marketed. The translations shall correspond to the English wording included in this document. If the information is provided in more than one language, elements that are not affected by the translations such as the company name, address, or the *Quality Seal*, can only be shown once.

Note: ENplus® G 2 - *Translations of the Pellets Bag Design – Informative guidance* provides bag designs translations into key languages.

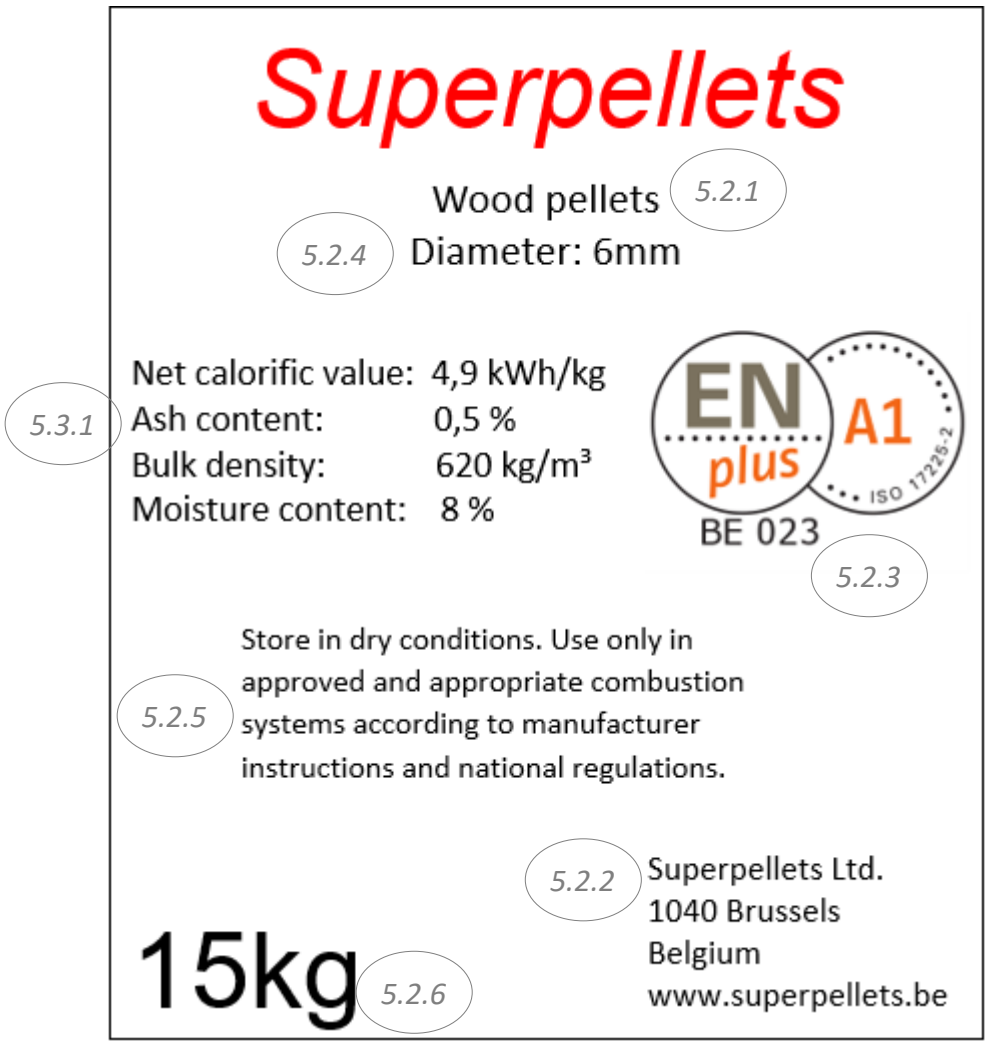


***Figure 1**: Illustration of a bag design*

5.2 MANDATORY INFORMATION

5.2.1 "Wood Pellets"

5.2.1.1 The bag design shall include the term "Wood pellets".

5.2.2 Name and address of the *Certified Company*

5.2.2.1 The bag design shall include the name and address (consisting of at least the city name or locality, postal code, the full name of the country, and website address or contact email address) of the *Certified Company* whose ENplus® *ID* is referenced in the bag design. The details of the *Certified Company* referenced in the bag design shall correspond to the details of the holder of the *Certification Seal* and of the ENplus® certificate, as listed on the international ENplus® website (www.enplus-pellets.eu) and shall be clearly visible.

5.2.3 Quality Seal

5.2.3.1 The bag design shall include the *Quality Seal* of the *Certified Producer* or *Certified Trader* responsible for bagging the pellets, or of the last *Certified Company* in the chain (the responsible *Certified Producer* or responsible *Certified Trader*). Where the same bag design is used for pellets from several suppliers, the bag design shall include the *Quality Seal* of the responsible *Certified Trader*.

5.2.3.2 The *Quality Seal* shall consist of the ENplus® *Logo*, the logo for the respective quality class (ENplus A1® or ENplus A2®), and the unique ENplus® *ID* of the respective *Certified Company*. The ENplus® *Logo* shall always be used with the unique ENplus® *ID*.

Note 1: Requirements for the *Quality Seal* are included in the ENplus® Handbook, version 3.0, part 2, 2.4.3.

Note 2: The *Quality Seal* is provided to the *Certified Company* by the ENplus® *Competent Management*.

Example: Figure 2 shows the *Quality Seal* of a Belgian producer for quality class ENplus® A1

***Figure 2**: Example of a Quality Seal*

5.2.3.3 The bag design may only refer to other certified companies involved in the production or handling of the relevant *Bagged Pellets* by using their ENplus® *ID* (between brackets) included in a description text.

5.2.3.4 Where pellets of quality classes ENplus A1® and ENplus A2® are both contained in a single bag, only the quality seal for ENplus A2® shall be used.

5.2.3.5 The *Quality Seal* shall be clearly visible on the bag, with a minimum height of 20 mm. The aspect ratio of the seal delivered by the *Competent Management* shall be maintained.

5.2.3.6 The *Quality Seal* shall only be reproduced in permitted colour combinations and colour codes of the several graphical elements, as defined in Annex 1.

5.2.4 Diameter

5.2.4.1 The bag design shall include the diameter of the pellets: "6 mm" for 6 mm *Bagged Pellets* or "8 mm" for 8 mm *Bagged Pellets*.

5.2.4.2 If the *Certified Company* is producing both diameter pellets, it shall use separate bag designs, one for the 6 mm pellets and another for the 8 mm pellets.

5.2.5 Notes

5.2.5.1 The bag design shall include the two following notes:

a) "Store in dry conditions."

b) "Use only in approved and appropriate combustion systems according to manufacturer instructions and national regulations."

5.2.5.2 Any alternations from the prescribed wording in chapter 5.2.5.1 shall comply with the meaning and objectives of the prescribed wording.

5.2.6 Net weight

5.2.6.1 The bag design shall include the net weight in kilogram [kg]. The bag design may only include additional information of a ± % where justification exists.

Note: The justification can include, for example, specifications of the bagging station, national regulations.

5.3 VOLUNTARY INFORMATION

5.3.1 Fuel Properties

5.3.1.1 The bag design can include additional fuel properties that can be presented in one of following two ways:

a) As the threshold values defined in the ENplus® Handbook, version 3.0, part 3 (table 1), including the correct ≥ or ≤ sign and unit of measure. The fuel properties shall be displayed with the same number of decimals, and on the same basis ("as received" or "dry basis"), as stated in the ENplus® Handbook, version 3.0, part 3; or

b) As a stricter limiting value for each technical property (ENplus® Handbook, version 3.0, part 3, table 1), provided that exactly the same parameters, units of measure and number of decimals are used (e.g., Ash – 0.4 %).

Note: The net calorific value "as received" shall be the only calorific value stated in the table of technical properties of the bag design. The gross calorific value determined by a listed *Testing Body* may be displayed in addition to the net calorific value. In this case, the font size of the gross calorific value shall be smaller than the font size of the net calorific value. The net calorific value "in dry conditions" shall not be stated on the bag design.

Table 1: *Threshold values of the pellet parameters.*

Property	Unit	ENplus A1®	ENplus A2®	Testing standard [11]
Diameter	mm	6 ± 1 or 8 ± 1		ISO 17829
Length	mm	3,15 < L ≤ 40 [4]		ISO 17829
Moisture	w-% [2]	≤ 10		ISO 18134
Ash	w-% [3]	≤ 0,7	≤ 1,2	ISO 18122
Mechanical Durability	w-% [2]	≥ 98,0 [5]	≥ 97,5 [5]	ISO 17831-1
Fines (< 3,15 mm)	w-% [2]	≤ 1,0 [6] (≤ 0,5 [7])		ISO 18846
Temperature of pellets	°C	≤ 40 [8]		
Net Calorific Value	kWh/kg [2]	≥ 4,6 [9]		ISO 18125
Bulk Density	kg/m³ [2]	600 ≤ BD ≤ 750		ISO 17828
Additives	w-% [2]	≤ 2 [10]		-
Nitrogen	w-% [3]	≤ 0,3	≤ 0,5	ISO 16948
Sulphur	w-% [3]	≤ 0,04	≤ 0,05	ISO 16994
Chlorine	w-% [3]	≤ 0,02		ISO 16994
Ash Deformation Temperature[1]	°C	≥ 1200	≥ 1100	CEN/TC 15370-1
Arsenic	mg/kg [3]	≤1		ISO 16968
Cadmium	mg/kg [3]	≤ 0,5		ISO 16968
Chromium	mg/kg [3]	≤10		ISO 16968
Copper	mg/kg [3]	≤10		ISO 16968
Lead	mg/kg [3]	≤10		ISO 16968
Mercury	mg/kg [3]	≤ 0,1		ISO 16968
Nickel	mg/kg [3]	≤10		ISO 16968
Zinc	mg/kg [3]	≤100		ISO 16968

[1] ash is produced at 815 °C
[2] as received
[3] dry basis
[4] a maximum of 1% of the pellets may be longer than 40mm, no pellets longer than 45mm are allowed.
[5] at the loading point of the transport unit (truck, vessel) at the production site
[6] at factory gate or when loading truck for deliveries to end-users (*Part Load Delivery* and *Full Load Delivery*)
[7] at factory gate, when filling pellet bags or sealed *Big Bags*.
[8] at the last loading point for truck deliveries to end-users (*Part Load Delivery* and *Full Load Delivery*)
[9] equal ≥ 16,5 MJ/kg as received
[10] the amount of additives in production shall be limited to 1,8 w-%, the amount of post-production additives (e.g. coating oils) shall be limited to 0,2 w-% of the pellets.
[11] As long as the mentioned ISO standards are not published, analyses shall be performed according to related CEN standards

5.3.1.2 The usage of the stricter limiting values (5.3.1.1b) shall:

a) Be confirmed by the results of a laboratory test performed by a listed *Testing Body*, based on a sample taken by a listed *Inspection Body*. The laboratory tests shall correspond to the pellets covered by the bag design;

b) Correspond to the values of the worst result(s) achieved in the event that the pellets to be bagged originate from several plants;

c) Be submitted to the *Competent Management* along with the laboratory analysis confirming these values as part of the application for the bag design approval.

d) Be consistent with the latest test results, meaning that no laboratory results can exceed the values specified in the approved bag design. In case of inconsistency the bag design must be amended to reflect a worst result and resubmitted to the *Competent Management* for approval.

e) Be the responsibility of the *Certified Company*, meaning that conformity of the pellets with the stricter limited values stated in the bag design, and the legal implications (including false claims) of this are the responsibility of the *Certified Company*.

Note 1: Testing results for 6 mm pellets shall only be used for demonstrating conformity of bag designs for 6 mm pellets. They cannot be used to demonstrate the conformity of 8 mm pellets. In this case a separate laboratory test would be needed.

Note 2: A testing report, resulting from an annual ENplus® inspection, may be used to satisfy the requirement 5.3.1.2.

5.3.2 Others

5.3.2.1 The bag design may include additional information provided it is truthful, accurate, and verifiable. As a part of the bag design approval process, the *Certified Company* shall provide upon request the competent management with evidence demonstrating conformity of pellets with the additional information.

Note 1: Examples of additional information include: wood species, additives, gross calorific value.

Note 2: No information, statement, or other text or symbol shall be misleading or untruthful.

5.3.2.2 The origin of pellets shall only be indicated by using the ENplus® *ID* of the producer and not by using the producer's seal.

5.3.2.3 In the event that a *Certified Company* displays its ENplus® *Quality Seal* on a bag design belonging to a non-certified company, this bag design shall be sent for approval to the *Competent Management*. Displaying the details of the *Certified Company* whose ENplus® *ID* is included in the bag design shall be compulsory, whereas displaying the details of the non-certified company shall be voluntary. When both companies' details are displayed on the bag design, a clear identification shall be made by differentiating the certified from the non-certified company (e.g. "Produced by" and "Distributed by", or "Certified trader" and "Distributor"). The non-certified company's details shall be displayed with the same or smaller font size than the details of the *Certified Company*.

6 PROMOTION OF BAGGED PELLETS

Certified companies contracting non-certified companies shall inform the latter of the restrictions on the use of ENplus® approved bag designs, including the information that:

a) Any claim relating to ENplus® certified pellets, in promotional materials of the non-certified company (website, flyers, social media, trading websites, etc.), shall be made by referencing the *Certified Company* by its name and ENplus® *ID*;
b) Usage of or reference to the ENplus® *Logo* or the *Quality Seal* by the non-certified company shall only be made by displaying a clear picture of an approved bag design belonging to the *Certified Company*.

Note: The purpose of this requirement is to avoid misleading customers by falsely implying that the non-certified company is covered by the ENplus® certification and that the non-certified company is a holder of the ENplus® seal.

ANNEX 1: COLOUR COMBINATIONS QUALITY SEAL

The *Quality Seal* shall be used as provided by the *Competent Management*. The vector file (.eps) allows the size of the seal to be changed without affecting the shape or the quality of the graphics.

***Table 2**: Possible colour combinations.*

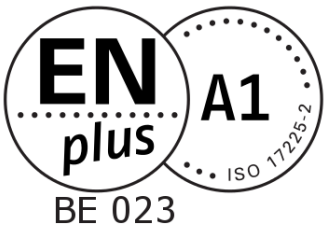
Version	Quality Seal
Version A: **Official colour combination** For colour codes, see Table 3	
Version B: **Monochrome black & white** Black elements on a white background.	
Version C: **Monochrome coloured** Monochrome elements on a monochrome background. The EN*plus*® *Logo* shall be clearly recognisable.	

***Table 3**: Colour codes for the colours of the different graphic elements*

	Orange	**grey**	**black**
RGB	R=225, G=93, B=0	R=134, G=129, B=117	R=24, G=23, B=21
CMYK	C=0, M=65, Y=100, K=0	C=0, M=5, Y=20, K=60	C=0, M=0, Y=0, K=100
Pantone	1505	424	Black
HKS	HKS 7	HKS 96	HKS 88