

Every certified producer and trader of wood pellets has a unique **Certification Seal** which consists of the ENplus Logo and a unique ENplus ID (see example certification seal for wood pellet producer in Belgium).



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The ENplus certification scheme defines three wood pellet quality classes – **ENplus A1, ENplus A2, ENplus B** – based on their properties. Each of the quality classes has a unique quality logo that is used in combination with the Certification Seal. The combination of the quality logo and the certification Seal is named the Quality Seal (see examples of Quality Seals for the quality classes ENplus A1, ENplus A2, ENplus B).



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Wood pellets quality classes ENplus A1 and ENplus A2 can be sold at the retail market only in pellet bags, which contain up to **30 kg** of pellets. Bagging pellets of quality class ENplus B is not allowed.

Benefits of ENplus certification:

- Well known worldwide, with global production and large supply base
- Well defined quality requirements which are maintained all the way to delivery to end-user
- Quality is assured by the ENplus seal

The quality classes ENplus A1, ENplus A2 and ENplus B are based on the technical standard **ISO 17225-2** for pellet properties. The parameters below are part of technical requirements being controlled during the ENplus certification and surveillance processes.

Characteristics	Unit	ISO 17225-2		
		A1	A2	B
Length	mm	31.5<L≤40		
Bulk density	kg/m ³	≥600		
Moisture content	w-%	≤10		
Ash	w-%	≤0.7	≤1.2	≤2.0
Low calorific value	kWh/kg	≥4.6		

Technical standardization and certification of biomass fuels

HOW CAN BIOMASS FUELS BE STANDARDIZED?

www.heatwisely.com



A regulatory framework for defining, testing, and monitoring the quality of biomass fuels used for heating **does not exist in Western Balkan countries**. The lack of standardization of biomass fuels is a significant obstacle to the development of a sustainable biomass supply and heating market.

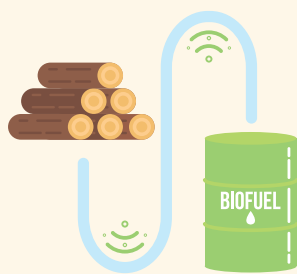
Standardization is a modern system controlling and demonstrating the compliance with requirements set out in technical standards – through certification and labeling, to ease logistical procedures, facilitate trade, prevent consumer deception, and improve quality of biomass fuels in the Western Balkans.



Western Balkan countries may choose to use international standards for biomass fuels (developed by e.g. **ISO** or **CEN**) or to develop their **own national** standards.

The **application** of technical standards is voluntary, and as such does not impose any regulation. However, national laws and regulations may refer to technical standards and even require compulsory compliance with them. If products (e.g. biomass fuels) is regulated by compulsory technical standards, and they do not satisfy such standards, they cannot be introduced to the market.

The main objective of **technical standardization** is that all the stakeholders in biomass supply chain follow the same product specifications and deliver the biomass fuels with uniform quality.



The most important international technical standards for biomass fuels include:

- **ISO 17225** - determines the quality classes and specifications for biomass fuels originating from forestry and agriculture
- **EN 15234** - defines the procedures to fulfill the quality requirements (quality control) and describes measures to ensure confidence that the biomass fuel specification is fulfilled (quality assurance); it covers the whole supply chain, from the supply of raw materials to point of delivery to the end-user
- **EN 16214** - defines procedures, criteria, and indicators, including their verification and auditing schemes, to provide the evidence that biomass fuels are produced respecting sustainability principles

Certification is a procedure by which a third party gives a written assurance that a biomass fuel is in conformity with technical standards. The granting of the written assurance or "certificate", is based on the inspection report and is always done by a third party.

In order to count towards mandatory national renewable energy targets, biomass fuels used must comply with the EU's sustainability criteria. One way for companies to demonstrate that their biofuels comply with the criteria is to participate in voluntary schemes.

The EU recognizes a number of voluntary schemes that verify compliance with the sustainability criteria for biomass fuels



(see <https://ec.europa.eu/energy/en/topics/renewable-energy/biofuels/voluntary-schemes> for more info).

Labeling of biomass fuels indicates that compliance with technical standards has been verified, and is a form of communication between seller and buyer.

ENplus certification scheme for wood pellets
(<http://www.enplus-pellets.eu>)

ENplus is EU-wide quality certification scheme for wood pellets, based on an ISO standard – **ISO 17225-2**. The aim of the ENplus certification scheme for wood pellets is to secure the supply of wood pellets for heating in residential, commercial and public buildings with a clearly defined and constant quality. ENplus covers the entire supply chain of wood pellets: from the production and delivery chain of wood pellets all the way to the end user's store.



The key components of the certification scheme are:

- **Definition of quality classes and specification of wood pellet properties**
- **Provisions on the quality management of pellet producers, traders and service providers**
- **Requirements on product declaration and use of the Certification Seal**
- **Listing of bodies, licensing and revoking, training**
- **Inspection and conformity evaluation of products, processes, and documents within the relevant standards and the provisions**

Producers and traders of wood pellets are subject to independent audits of their processes, and samples of the product are tested to ensure compliance with the standards.