

Precisely Right.



Certification Scheme

Wood Pellets Class A1 (2 PfG C 0444/02.25)

according to

DIN EN ISO 17225-2 (A1)

(Edition: February 2025)

Foreword

DIN CERTCO was founded in 1972 by the DIN Deutsches Institut für Normung e. V., is now part of the TÜV Rheinland Group, and is the certification body for issuing DIN marks and other certification marks for products, people, services, and companies based on DIN standards and similar specifications. Due to its independence, neutrality, competence, and long-standing experience, DIN CERTCO enjoys a high reputation both domestically and abroad.

In order to demonstrate the functionality of the system and our competence as a certification body, we have obtained accreditation, certification, or recognition both in the voluntary and in the legally regulated sector from independent bodies at home and abroad. <u>Our accreditations.</u>

The revision of the certification scheme took place with the participation of the experience exchange group for wood pellets, as well as testing laboratories and market players. The growing number of companies, the increase in the trade of wood pellets, and changes in the market situation led to the necessity of revising the certification scheme.

This certification scheme, together with other documents, such as the General Terms and Conditions and the Examination, Registration, and Certification Regulations of DIN CERTCO, forms the basis for providers of wood pellets to mark their products with the "DINplus" quality mark. In doing so, they document that their products meet all the requirements of the International Standard DIN EN ISO 17225-2 (A1) and exceed them in some regards.

The "DINplus" quality mark creates trust among consumers that an independent, neutral, and competent body has carefully examined and evaluated the test criteria. External monitoring also ensures that product quality is maintained during ongoing production. As a result, the customer receives added value, which they can consider in their purchase decision.

Wood pellets receive the "DINplus" quality mark upon meeting the requirements defined in this certification scheme.

All certificate holders can be accessed on the homepage of DIN CERTCO (<u>www.dincertco.de</u>) and are updated daily.

Amendments

Compared to the certification scheme "Wood Pellets class A1" (2021-11), the following changes have been made and must be implemented within 1 year:

a) General revision of the structure of the certification scheme

- b) Changes to the certification process
- c) Changes to product requirements
- d) Modifications to the quality assurance system
- e) Editorial changes

Previous Editions

Certification Scheme "Wood Pellets class A1" (2021-11)

Certification Scheme "Wood Pellets for use in small furnace" (2020-01, 2015-06; 2014-04; 2011-09; 2010-04; 2007-08; 2005-09 und 2004-01)

Remark

The German version of this certification scheme shall be taken authoritative. This English version is provided without any guarantee of accuracy.

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1 Scope

This certification scheme applies to wood pellets class A1 and contains all the requirements for awarding the "DIN*plus*" quality mark in conjunction with the testing specifications mentioned below.

The certification scheme at hand sets out requirements for the product itself, as well as its testing, surveillance, and certification.

2 Test and Certification Bases

The bases for testing and certification are the currently valid versions of the following documents:

DIN EN ISO 17225-2 Solid biofuels - Fuel specifications and classes - Part 2: Graded wood pellets

- this Certification Scheme
- the General Terms and Conditions of DIN CERTCO
- the corresponding Schedule of Fees of DIN CERTCO
- the Examination, Registration, and Certification Regulations of DIN CERTCO

2.1 Changes to the Test Basis

Should the basis for testing of the certification change, an application for certification amendment may need to be submitted within 12 months upon notification by DIN CERTCO wherein the conformity with the changed test principles must be demonstrated by presenting the corresponding documents according to <u>Table 1</u>, if applicable.

3 Certification

3.1 Certificate Holders

Companies that engage in the activities listed below can apply for the DIN*plus* certificate for wood pellets. These companies are hereinafter referred to as "certificate holders".

Within the scope of certification, certificate holders are classified into different types depending on their operational capabilities (see Figure 1).

The various types define the requirements for the documents to be submitted (see Table 1).



Figure 1 Overview of the different certificate holders

*) wood pellets being produced / bagged by another certificate holder; or independently sourcing / storing / transporting / placing wood pellets on the market

	Type 1	Type 2	Type 3
Application	х	Х	Х
Inspection Report (Factory Inspection)	х	Х	
Inspection Report (Document Review)			х
Test Report	х	Х	
Layouts*	х	х	х
List of Suppliers (DINplus- Certified Wood Pellets)	х	Х	
Outsourcing Lists	х	Х	Х
Root <u>Cause</u> Analysis for <u>Deviations regarding</u> Laboratory <u>Testing</u>	Х	Х	

Table 1 Overview of the required documents dependent on the corresponding certificate holder type

*) and/or delivery notes or accompanying documents, provided that the sale of bulk pellets occurs.

3.2 Outsourcing of Pellet-Related Services

The production and bagging of DIN*plus*-certified wood pellets as a pellet-related service can be outsourced to other DIN*plus*-certified companies. This enables all certificate holders participating in the certification scheme to place DIN*plus*-certified wood pellets on the market, regardless of whether they own a production facility.

The prerequisite for this is that both the service provider and the client possess a valid certificate. The scope of the requirements for inspections of the service provider's production site and the laboratory testing of the products made there must be extended to include the outsourced product.

This means that if a producer, who originally specified in his own scope only the production of DIN*plus*-certified wood pellets in 6 mm diameter but produces additional pellets in 8 mm diameter as part of an outsourced service for his customer, the requirements for inspection and testing change as if he were producing DIN*plus*-certified wood pellets in both 6- and 8 mm diameters in his scope.

Every company that offers or receives pellet-related services must maintain a list for each calendar year containing the names of all companies, the official designations of the trademarks, and their corresponding registration numbers for which the service was offered or received. The listed trademarks may differ from the own trademarks of the cooperation partners. The list must be kept up-to-date, and any new cooperation partner must be recorded together with the period of the cooperation, so that it is clear which pellet-related services have taken place in a calendar year.

The list must be sent to DIN CERTCO at the start of certification and in the event of any changes, within one week at the latest. DIN CERTCO includes all approved suppliers in the scope of the certificate holder.

The templates for the lists to be filled out are created by DIN CERTCO and must not be altered.

Each certificate holder who outsources a pellet-related service remains responsible for the quality assurance of their product, especially for the complaints process.

3.3 Certification Process

3.3.1 General

Certification, in the context of this certification scheme, involves the conformity assessment of a product and the quality management system of a certificate holder by DIN CERTCO based on inspection reports and, if applicable, test reports from its recognized inspectors/auditors and inspection bodies, as well as testing laboratories, if applicable.

Here, the products to be certified are checked for compliance (conformity) with the requirements stated in this certification scheme.

The right to use the "DIN*plus*" quality mark is granted by issuing a corresponding certificate. The right of use expires with the end of the certification.

3.3.2 Conformity Assessment

DIN CERTCO conducts the conformity assessment based on the submitted application documents. This particularly involves evaluating, based on inspection reports and, if applicable, test reports, whether the product meets the requirements of the certification scheme and the standard.

The applicant will be informed in written form by DIN CERTCO about any possible deviations.

3.4 Certificates

3.4.1 General

Every company that wishes to place DIN*plus*-certified wood pellets on the market must be in possession of a valid main certificate.

3.4.2 Main Certificates

Main certificates have their own registration number and are tied to one certificate holder. Any company, i.e., any natural and legal person or legal partnership, can register as a certificate holder. Every company or business name of the entrepreneur must have its own main certificate if it wants to place DIN*plus*-certified wood pellets on the market.

Multiple main certificates with different registrations numbers per company or business name are permitted.

Each main certificate is tied to a trademark, which can be produced or bagged in the production facilities of the certificate holder or at the production facilities of other certificate holders.

Several production facilities of the certificate holder can be included in the scope of a main certificate. A separate inspection and test of the product must be carried out for each manufacturing facility. For the extension of a main certificate, each production facility must have been successfully tested beforehand.

3.4.3 Sublicenses

Sublicenses can only be issued for additional trademarks of the certificate holder. Sublicenses carry the same registration number as the main certificate and are tied to the certificate holder. Sublicenses may contain different specified diameters from the main certificate.

Each trademark must be presented to DIN CERTCO for evaluation with a packaging layout or a delivery note/accompanying documents (for bulk pellets), and a sublicense for this trademark must be applied for.

3.4.4 Application for Certification

To apply for certification, the signed application form with date and legally binding signature must be submitted, as well as the documents required in <u>Table 1</u>.

The applicant will receive from DIN CERTCO an order confirmation with a procedure number and information on the further course of the procedure as well as any missing application documents upon receipt of the application.

The certification can only be successfully completed when all required documents have been submitted and their evaluation has been concluded positively.

3.4.5 Classification into Types/Models and Diameter

Trademarks or brand names are listed as types or models on the certificates and in the DIN CERTCO database. These are specified, for example, on the packaging layouts or accompanying documents for deliveries of DIN*plus*-certified bulk pellets.

The sole use of generic terms like "wood pellets," "bulk pellets," or "bagged pellets" as trademarks is prohibited; however, these expressions can be used in combination with the company name, e.g.: "Example Company – bulk pellets."

Both bulk pellets and bagged wood pellets can be placed on the market under the same trademark, provided they originate from the same production process.

Bagged goods of different weight classes can be placed on the market under the same trademark, provided the layout is identical aside from the weight indication.

A trademark may have different color variations, provided that these differ solely in color, and that all graphic elements, texts, and languages are identical.

A certificate is issued for each trademark, and the validity is published in the up-to-date digital DIN CERTCO database.

The diameter (6 mm and/or 8 mm) is technical data that appears on a certificate within the DIN CERTCO database.

3.4.6 Certificate and Right to Use the Mark

Upon successful examination and conformity assessment of the submitted application and documents, DIN CERTCO provides the applicant with a certificate and grants the right to use the "DIN*plus*" quality mark in conjunction with the associated registration number. To ensure traceability, the registration number must be readably displayed on the packaging or accompanying documents and be located directly below the quality mark, as well as having a height of at least 2.0 mm.



Structure of the registration number:

7A000

Wood pellets for which the right to use the "DIN*plus*" quality mark has been granted must be labeled with the "DIN*plus*" quality mark and the associated registration number.

The quality mark and the registration number may only be used for the trademarks for which the certificate has been issued. Additional sublicenses must be obtained for any additional trademark.

A registration number is assigned to each main certificate.

Additional trademarks of the same certificate holder are considered as sublicenses and bear the same registration number of the main certificate.

Furthermore, the General Terms and Conditions and the Examination, Registration, and Certification Regulations of DIN CERTCO apply.

3.4.7 Publications

All certificate holders can be accessed in real-time via the DIN CERTCO homepage (<u>www.din-certco.de</u>) under "Certificates and Registrations" in the <u>DIN CERTCO Database</u>. Certificate holders and consumers can use this research option to obtain information about certified products.

In addition to the contact details of the certificate holder (e.g. telephone, fax, email, homepage), the technical data of the registered wood pellets can also be viewed there.

Additionally, the contact details of the certificate holders' own production facilities are listed in the database.

It is up to each certificate holder to publish their DIN*plus*-certified wood pellet suppliers in the database.

3.4.8 Certificate Validity Period

The certificate has a regular validity of 5 years. The period of validity is indicated on the certificate. With the expiration of the certificate, the right to use the mark also expires.

3.4.9 Renewal

If the certification is to be maintained beyond the validity period specified in the certificate, DIN CERTCO must be provided with the layouts or the delivery/accompanying documents of all active trademarks as well as a current positive inspection report and, if necessary, a positive test report, in good time before the expiration of the validity.

3.4.10 Expiry of the Certificate

The certificate may expire if:

- Surveillance actions are not carried out on time or are incomplete
- Deviations are not corrected
- The certificate has been suspended for over 8 weeks
- "DIN*plus*", as a sign or word trademark, is misused by the certificate holder

- The requirements arising from this certification scheme, including its attachments or accompanying documents, are not met
- The incurred certification fees are not paid on time
- The prerequisites for the issuance of the certificate are no longer met

4 **Product Requirements and Quality Assurance**

4.1 **Product Requirements**

4.1.1 Raw Materials

DIN*plus*-certified wood pellets may only be produced from untreated wood and chemically untreated wood residues, even with the addition of additives. The following primary materials are permissible according to DIN EN ISO 17225-2, Table 1, for the classification of A1 wood pellets:

1.1.3 Roundwood

1.2.1 Chemically untreated wood residues

A certificate holder (Type 1) must keep up-to-date (daily) records of the origin of their raw materials, including a list of suppliers approved by the certificate holder (Type 1) and their confirmation that only untreated wood or chemically untreated wood residues are delivered for the production of wood pellets.

Chemically untreated wood pellets are considered chemically untreated wood residues if, in the course of recycling, they are reused as raw material in their original state as sawdust or wood shavings. The upper limit of 2% additives must not be exceeded.

4.1.2 Contaminants, Foreign Matter and Additives

Foreign matter is not permitted.

Exceptions are, provided that all chemical parameters of the pellets are clearly within the limit values and/or the concentrations are too low to be considered, negligible amounts of glue, grease, and other lubricants, as well as additives used in wood production in sawmills for producing wood and wood products from untreated wood.

Additives used to support production, combustion, or delivery (e.g., pressing aids, slag formation inhibitors, corn flour, starch, potato flour, lignin, or vegetable oil) are permissible with a maximum mass content of 2%, relative to wood pellets in the received condition.

The type and quantity of any additives used must be recorded.

4.1.3 Sourcing of DIN*plus*-Certified Wood Pellets

Any certificate holder or company to which a pellet-related service has been outsourced is allowed to source wood pellets that have a valid DIN*plus* certification.

The sourced wood pellets can either be resold unchanged under the original brand and name of the associated certificate holder or replaced on the market under a different brand.

Should the wood pellets be sourced from a market participant who does not possess their own DIN*plus* certification, the sourcing company must ensure that the wood pellets are validly DIN*plus* certified and have not been altered physically, chemically, or in terms of packaging since being placed on the market.

Each certificate holder sourcing DIN*plus* certified wood pellets must maintain a daily updated list of their suppliers, which provides information about the sourced brands along with the corresponding registration numbers.

The list must be submitted to DIN CERTCO at the beginning of the certification and no later than 1 week after any changes.

Each certificate holder is allowed to voluntarily publish their suppliers in the DIN CERTCO database for public view.

4.2 Quality Assurance

The certificate holder must ensure through appropriate quality assurance measures that the properties of the product confirmed during certification are maintained. Quality assurance can, for example, be ensured through measures within a quality management system (QM system) according to DIN EN ISO 9001.

The certificate holder must appoint a senior specialist for the certification program and nominate them to the supervisory body. The same applies to the deputy. Any changes must be immediately communicated in writing to the supervisory body.

4.2.1 Quality Assurance Requirements

The quality assurance must, among other things, cover the following contents:

- Regulations regarding responsibilities and accountabilities
- Procedures and work instructions for quality-relevant activities
- Control of incoming and outgoing goods
- Control of the product during the production or bagging process (factory production control)
- Controls of the testing equipment used (calibration, functional testing)
- Controls of maintenance and cleaning work
- Training of employees
- Complaints management

Measures established within the framework of quality assurance must be adhered to by the certificate holder.

4.3 Modifications/Updates Regarding the Product and the Production and Bagging Process

Every certificate holder is obliged to immediately notify DIN CERTCO of any changes to the product (e.g. modalities) as well as to the production and bagging process. DIN CERTCO will decide, possibly in coordination with a testing laboratory, to what extent an inspection or test is to be carried out and whether it is a significant change.

If DIN CERTCO identifies a significant change that leads to a deviation from the original basis of the certification, the certificate with the corresponding registration number will expire. For the modified product, an application for initial certification and the right to use the "DIN*plus*" quality mark can be submitted again.

The certificate holder is also always required to notify any changes in formal information (e.g. address of the certificate holder, company name).

4.4 **Product Deviations**

If deviations are found in a certified product, the certificate holder will be requested in writing by DIN CERTCO to immediately resolve the deviations.

For deviations that have a direct or indirect impact on the safety or functional performance, the certificate holder must ensure that the products are not marked with the certification mark until the deviations have been resolved.

In special cases, DIN CERTCO can require a recall of the products in the market at the certificate holder's expense.

For deviations that do not affect safety or functional performance, the certificate holder must provide proof to DIN CERTCO in a timely and appropriate manner that the deviations in the disputed product have been rectified.

The certificate holder is obliged to perform a root cause analysis and immediately rectify the cause and the deviations in all affected products.

The certificate holder must provide timely proof to DIN CERTCO by submitting a written root cause analysis with additional details of the corrective actions taken, as well as a test report of a special test according to section 5.2.4, demonstrating that the deviations have been rectified and the disputed product again meets the specified requirements.

In the meantime, DIN CERTCO can arrange for the suspension of the right to use the "DIN*plus*" quality mark and the removal of the certificate holder from the DIN CERTCO database.

If the certificate holder does not meet the specified deadline, the certificate and thus the right to use the "DIN*plus*" quality mark may be revoked.

If there are still grounds for objection after a special inspection, the certificate may initially be suspended by DIN CERTCO, and a new deadline for rectifying the deviations may be set simultaneously.

DIN CERTCO may additionally arrange for a special inspection with accompanying sampling.

If deviations repeatedly occur in the product and cannot be rectified within the framework of special inspections, these are considered systematic deviations. In that case, the certificate and thus the right to use the "DIN*plus*" quality mark may be withdrawn.

If the certificate holder does not comply with the requirements or cannot demonstrate a permanent rectification of the deviations, the certificate will expire.

The deadlines for correcting deviations can be set by both DIN CERTCO and the auditors/inspectors conducting the inspection.

DIN CERTCO reserves the right to specify different mandatory deadlines.

To verify whether the deviation has been rectified, a second annual sampling and special test must take place. The sample can be independently taken by the certificate holder and sent to a testing laboratory recognized by DIN CERTCO. The parameters that failed in the previous laboratory tests must be re-tested during the special test.

4.5 Deviations in the Quality Assurance System

For deviations that have a significant direct or indirect impact on quality assurance, the certificate holder must ensure that the products are neither marked with the certification marks nor placed on the market until the deviations have been corrected. The certificate holder must provide proof to DIN CERTCO in an appropriate manner that the deviations have been corrected in due time.

For deviations that have a minor impact on quality assurance, the certificate holder must provide proof to DIN CERTCO in an appropriate manner that the deviations have been rectified within due time.

The deadlines for rectifying the deviations can be set by both DIN CERTCO and the auditors/inspectors conducting the inspection.

DIN CERTCO reserves the right to specify different mandatory deadlines.

In the meantime, DIN CERTCO can arrange for the suspension of the right to use the "DIN*plus*" quality mark and the removal of the certificate holder from the DIN CERTCO database.

If the certificate holder does not comply with the requirements or cannot demonstrate a permanent rectification of the deviations, the certificate will expire.

5 Tests and Inspections

5.1 General

As a basis for the evaluation and certification of products, DIN CERTCO uses recognized testing laboratories, internal as well as external auditors/inspectors, and cooperating inspection bodies.

Each certificate holder has the free choice of a recognized testing laboratory, which is listed in the DIN CERTCO database. Only test reports from accredited testing laboratories, which are recognized by DIN CERTCO for conducting product tests for wood pellets, are accepted as the basis for evaluation.

For each production site, an independent inspection and testing of the produced or bagged products are carried out. For certificate holders (Type 3), only a digital document review is conducted.

5.2 Types of Tests and Inspections

5.2.1 Inital Test/Initial Inspection

The initial test/-inspection serves to determine whether the product and/or the quality assurance system meets the requirements of the entire certification scheme.

The documents to be submitted can be found in <u>Table 1</u>, Section **Fehler! Verweisquelle konnte nicht gefunden werden.**

5.2.2 Surveillance Test/Surveillance Inspection

The surveillance test/-inspection is conducted annually and serves to determine whether the certified product and/or the surveillance measures to be taken continue to meet the requirements of the certification scheme.

This must be demonstrated in a timely manner (see also General Terms and Conditions) by submitting the documents listed in Table 2.

	Type 1	Type 2	Type 3
Inspection Report (Factory Inspection)	х	х	
Inspection Report (Document Review)			Х
Test Report	Х	Х	
List of Suppliers (DINplus- Certified Wood Pellets)	Х	Х	
Outsourcing Lists	Х	Х	Х
Root <u>Cause</u> Analysis <u>for Deviations regarding</u> Laboratory <u>Testing</u>	Х	Х	

Table 2 Required Documents within a Surveillance

An annual factory inspection or document review must be conducted even if there has been no production, bagging, or placing of DIN*plus*-certified wood pellets on the market.

5.2.3 Supplementary Test/Supplementary Inspection

A supplementary test/-inspection can take place if additions, extensions, or changes have been made to the certified product, production process, loading and bagging process, or quality assurance that impact the conformity with the underlying requirements of the certification scheme.

These must be documented in a timely manner with appropriate evidence.

The type and extent of a supplementary test/-inspection will be determined by DIN CERTCO on a case-by-case basis.

5.2.3.1 Extension Due to New Production Lines and Bagging Lines

Each installation of a new production or bagging line requires a preliminary laboratory supplementary test of the products manufactured on the new line.

Every certificate holder (Type 1 and 2) is obligated to inform DIN CERTCO in writing about the implementation of a new line for the production or bagging process before the product manufactured on the new line is place on the market.

DIN CERTCO recommends taking the sample at the end of a completed test run, before the actual production, to avoid the buildup of potentially larger quantities of deviated products in advance.

The sampling is independently carried out by the certificate holder (Type 1 and 2) and must be documented photographically.

The sampling and the technical laboratory tests to be conducted must comply with the specifications of sampling within the framework of the annual factory inspection according to section 6.3.1.

5.2.4 Special Test/Special Inspection

A special test/-inspection can take place:

- in case of detected deviations regarding the production, bagging, and loading process as well as quality assurance
- in case of initially detected deviations in the product in combination with a second annual sampling
- in case of repeatedly detected deviations in the product in combination with further measures
- after a production interruption for a period of more than 6 months
- upon justified initiation by DIN CERTCO
- upon written request by "third parties" if they have a particular interest in maintaining proper market conditions in competitive or qualitative terms

The completion of the special test/-inspection must be timely documented with a positive inspection and, if applicable, test report depending on the detected deviation, or a positive test report in combination with further corrective measures. The type of corrective measures is determined individually by DIN CERTCO. The type and extent of a special test/-inspection are determined individually by DIN CERTCO.

If deviations are detected during a special test/-inspection, the certificate holder bears the costs of the special test/-inspection procedure.

If no deviations are found during special tests/-inspections conducted at the request of third parties, the costs are borne by the requesting third party.

If a special test is conducted due to detected deviations in the product within the framework of a laboratory test, DIN CERTCO may additionally require the tested certificate holder to provide a written root cause analysis and corrective measures regarding the elimination of the error source to prevent further systematic follow-up errors.

5.2.4.1 Second Annual Sampling

If a deviation occurs within the laboratory test during the annual factory inspection, an additional sampling must be carried out within the surveillance year regardless of the direct re-test of the parameters. The samples taken will be tested for the non-compliant parameters by a laboratory recognized by DIN CERTCO for their fuel technical properties according to Annex 1.

The sampling is independently carried out by the certificate holder (Type 1 and 2) and must be documented photographically. DIN CERTCO specifies a time frame for the sampling.

The second annual sampling is inapplicable in the year of renewal.

5.2.4.2 Suspension of Production for More Than 6 Months

After a production interruption of 6 months, a laboratory special test is required to ensure compliance with the specified fuel technical properties of the product according to the guidelines in Annex 1 before it is brought onto the market again.

Every certificate holder (Type 1 and 2) is obligated to inform DIN CERTCO in writing about a production interruption of 6 months immediately after the resumption of the production or bagging process but before the product is brought to market, and to submit a sample to a laboratory recognized by DIN CERTCO.

The commissioning of the laboratory is the responsibility of DIN CERTCO.

DIN CERTCO recommends taking the sample at the end of a completed test run, before the actual production, to avoid the buildup of potentially larger quantities of deviating products in advance.

The sampling is independently carried out by the certificate holder (Type 1 and 2) and must be photographically documented.

The sampling and the laboratory tests to be conducted must comply with the specifications of sampling within the framework of the annual factory inspection according to section 6.3.1.

5.3 Sampling

The samples for the initial, surveillance, supplementary, and special tests are generally sent by the certificate holder to the laboratory assigned with the tests. The costs for this are borne by the certificate holder.

The sampling within the framework of the initial and surveillance inspection is carried out by a recognized auditor/inspector at the earliest 3 months before the inspection date and at the latest on the day of the inspection. In exceptional cases and under certain conditions, the sampling can be performed by a different person. Each exception must be reported to DIN CERTCO in advance and can only be authorized by DIN CERTCO.

Sampling within the framework of a remote audit, re-test, or the second annual sampling can be independently conducted by the inspected company. As proof, the sampled product must be photographed and the photographic documentation along with the sample requisition form must be submitted to DIN CERTCO.

For the production of bagged pellets and bulk pellets, it is recommended to take at least one sample each of the bagged pellets and bulk pellets.

The actual number of samples to be taken and the type of tests required ultimately depend on Annex 5 and may differ from the recommended minimum sample number.

The number of samples and the required sample quantity must not be changed without prior consultation with DIN CERTCO.

Sample quantity of bulk wood pellets:

The required sample amount per sample is at least 5 kg for determining the fines and 4 kg for determining the other properties of bulk pellets.

Sample quantity of bagged wood pellets:

The required sample amount per sample is at least 10 kg for determining the fines and 4 kg for determining the other properties of bagged products.

The samples are clearly and permanently labeled and generally must arrive at the laboratory assigned with the test within 14 days along with the sample requisition form. There are two types of sampling to distinguish from:

5.3.1 Sampling of Flowing Goods

It is recommended to obtain the required sample material in the form of at least 5 individual samples, each with a mass of approximately 2.0 kg, from the "production stream". The sampling should occur at the last possible sampling point at the production site.

The individual samples should be taken at staggered times such that a multiple (at least ten times) of the mass of an individual sample passes through the conveyor system between the samplings.

5.3.2 Sampling of Stored Goods

It is recommended to obtain the necessary sample material in the form of at least 5 individual samples, each with a mass of approximately 2.0 kg, from the storage, the transport vehicle, or the packaging, container, and the like, distributed as evenly as possible.

Small packaging units (< 20 kg) should be taken as a whole unit.

5.3.3 Testing Procedure

The tests must be conducted in the laboratory according to the test standards specified in the product standard.

The determination of the quantity and type of additives used is carried out during the factory inspection based on the producer's documentation and the calculated balance between the applied amount of the additive and the produced quantity of DIN*plus*-certified wood pellets.

6 Surveillance

6.1 General

A key component of the certification is the regular monitoring of the certified product throughout the entire duration of the certificate.

A distinction is made between self-monitoring by the certificate holder and external surveillance by DIN CERTCO or cooperating inspection bodies.

6.2 Self-Monitoring

It must be ensured through appropriate measures within the framework of quality assurance that the product properties confirmed during certification are maintained.

This can be achieved through a factory production control (FPC) directly focused on the product or the production and bagging process, and additionally through measures within a quality assurance system, such as adequate incoming and outgoing goods inspections.

6.2.1 Scope of the Incoming Goods Control for Certificate Holders (Type 1)

For each delivery, an incoming goods inspection must be conducted and documented in an appropriate manner. This includes an inspection of the delivered raw materials, the DIN*plus*-certified wood pellets, and the associated documents.

The incoming goods inspection must cover the following contents:

- Classification of the delivered raw materials by usage type (e.g., raw materials for pelletizing, raw materials for use in other processes)
- Classification of the delivered wood pellets by certification level (e.g., DIN*plus*-certified wood pellets, non-certified wood pellets) and by usage type (e.g., wood pellets for bagging, wood pellets for use in other processes)
- Visual inspection of the delivery vehicles for contamination of the load
- Verification of the recognition of the raw material supplier
- Verification of the supplier's declaration regarding the natural purity or the absence of chemical treatment of the delivered raw materials
- Verification of the authenticity and validity of the certification of the delivered DIN*plus*certified wood pellets (supplier, trademark/brand name, registration number)

For certificate holders (Type 1) who provide the raw material internally, an incoming goods inspection can be waived.

The certificate holder (Type 1) must always ensure that there is no mixing of DIN*plus*-certified and non-certified wood pellets at any time.

The certificate holder (Type 1) must maintain an up-to-date list of their suppliers from whom DIN*plus*-certified wood pellets were sourced throughout the year for each calendar year. The list must be sent to DIN CERTCO at the start of certification and within one week after any changes. DIN CERTCO includes all approved suppliers within the scope of the certificate holder. The template for the list to be filled out is created by DIN CERTCO and must not be altered.

6.2.2 Scope of the Incoming Goods Control for Certificate Holders (Type 2)

For each delivery, an incoming goods inspection must be conducted and documented appropriately. This includes an inspection of the delivered DIN*plus*-certified wood pellets and the associated documents.

The incoming goods inspection must cover the following contents:

- Classification of the delivered wood pellets by certification level (e.g., DIN*plus*-certified wood pellets, non-certified wood pellets)
- Visual inspection of the delivery vehicles for contamination of the load
- Verification of the authenticity and validity of the DIN*plus* certification of the delivered wood pellets (supplier, trademark/brand name, registration number)

The certificate holder (Type 2) must always ensure that there is no mixing of DIN*plus*-certified and non-certified wood pellets at any time.

The certificate holder (Type 2) must maintain an up-to-date list of their suppliers from whom DINplus-certified wood pellets were sourced throughout the year for each calendar year. The list must be sent to DIN CERTCO at the start of certification and within one week after any changes. DIN CERTCO includes all approved suppliers within the scope of the certificate holder. The template for the list to be filled out is created by DIN CERTCO and must not be altered.

6.2.3 Factory Production Control

6.2.3.1 General

The factory production control is the continuous monitoring of the production process by the certificate holder or the company to which the pellet-related service has been outsourced. It aims to ensure the conformity of the produced products with the established requirements by guaranteeing comparability.

It is recommended to conduct the tests according to the guidelines of the relevant and valid testing standards regarding DIN EN ISO 17225-2 to achieve better comparability between the results of the laboratory test and the own results.

In case of a negative test result, the certificate holder (Type 1 and 2) must immediately take all measures to correct the deviation. Faulty products must be labeled and sorted out. The test must be repeated after the corrective measures have been carried out to determine whether the deviation has been rectified.

6.2.3.2 Scope of the Factory Production Control for the Certificate Holder (Type 1)

Factory production controls must be conducted on the finished products by qualified personnel at least once per shift on production days.

They include the following tests:

- Determination of moisture content
- Determination of mechanical durability (abrasion)
- Determination of the maximum length/proof of exclusion of overlong wood pellets with a length of over 45 mm
- Determination of fines (Sampling must be done at least after bagging for bagged goods or before loading for bulk pellets. It is recommended to alternate between different lines for sampling if there is more than one bagging or production line.)

In special cases, if the factory production control could not be carried out within a shift, it must be completed immediately at the beginning of the following shift.

If a special case occurs regularly, arrangements must be made with DIN CERTCO in advance.

6.2.3.3 Scope of the Factory Production Control for the Certificate Holder (Type 2)

A factory production control of the finished products must be conducted by qualified personnel at least once per shift on production days.

It includes the following tests:

- Determination of fines
- (Optional) Determination of mechanical durability (abrasion)

In special cases, if the factory production control could not be carried out within a shift, it must be completed immediately at the beginning of the following shift.

If a special case occurs regularly, arrangements must be made with DIN CERTCO in advance.

6.2.4 Outgoing Goods Control for the Certificate Holder (Type 1 and 2)

To ensure compliance with the fines requirement, the generated abrasion of the pellets must be sieved directly before loading or packaging. The proper functioning of the sieving equipment of the loading and bagging systems must be checked regularly.

To ensure that the weight of the bagged goods remains constant, it is necessary to continuously record the weight using suitable, calibrated measuring tools and to document the results in writing. Both automatic and non-automatic weighing devices may be used. National guidelines and regulations for weight recording must be complied with. Once a day on production days, a reference sample of at least 1.5 kg must be taken at the outgoing goods. This sample must be labeled accordingly to associate and address possible complaints/customer inquiries with the corresponding production period. The retention period is at least 9 months.

In handling bulk pellets, regular checks must be carried out to ensure that a temperature of 40 °C is not exceeded. If a temperature excess does occur, a corresponding notice must be communicated to the end customers.

The DIN*plus*-certified bulk pellets or bagged pellets must be stored protectively from dirt and moisture.

6.2.5 Self-Monitoring Through the Certificate Holder (Type 3)

Every certificate holder (Type 3) must ensure a quality assurance system that includes at least the following contents:

- Regulations regarding responsibilities and accountabilities
- Procedures and work instructions for quality-related activities
- Employee training (starting from 2 employees)
- Complaint management

6.2.5.1 Additional Requirements for Operating Storage Facilities

If a certificate holder (Type 3) additionally has storage facilities where DIN*plus*-certified wood pellets can be stored, they must also have an adequate incoming and outgoing goods inspection, as well as control of the testing equipment used (scale for loading), as part of the quality assurance.

The incoming goods inspection must then comply with the scope of the incoming goods inspection according to Chapter 6.2.2.

The outgoing goods inspection must then comply with the scope of the outgoing goods inspection according to Chapter 6.2.4, except for paragraph 2.

6.2.6 Documentation and Records

For the following quality-related activities, the certificate holders must have written procedure and work instructions prepared or approved by the respective responsible person.

The scope depends on the operational capabilities of the certificate holders and must cover the following contents:

Certificate holders (Type 1 and 2):

- Monitoring of incoming and outgoing goods
- Monitoring of the used testing equipment (calibration, function test)
- Conducting the factory production control
- Responsibilities and accountabilities

- Work instructions for operating the production facilities
- Handling deviations
- Complaints management
- Maintenance work
- Employee training

Certificate holders (Type 3):

- Responsibilities and accountabilities
- Complaints management
- Maintenance work (only for storage operations)
- Employee training (for 2 or more employees)
- Monitoring of incoming and outgoing goods (only for storage operations)
- Monitoring of the used testing equipment (calibration, function test) (only for storage operations)

The execution of these processes must also be prepared or approved and documented in a traceable manner by the respective responsible person. All documents must be dated and signed by the responsible person and, if applicable, the participants, and must be presented upon request to DIN CERTCO or their representatives. Calibration and function test records must additionally be available on the used testing equipment.

6.3 Surveillance Through DIN CERTCO

DIN CERTCO annually verifies through surveillance tests and inspections the conformity of the product with the requirements specified in the certification scheme as well as quality assurance within the scope of factory inspections or document reviews.

6.3.1 Factory Inspection and Document Review

As part of a factory inspection or document review, DIN CERTCO (or a commissioned third party) reviews the quality assurance measures and additionally for certificate holders (Type 1 and 2) the production and testing facilities for proper manufacturing or proper bagging of wood pellets and their placement on the market.

The factory inspection serves to determine whether the production conditions for continuous conformity of the products with the requirements of the certification scheme are met. This includes checking the implementation of the necessary tests within the framework of the factory production control. Additionally, samples are taken for laboratory testing.

The samples taken are tested by a testing laboratory recognized by DIN CERTCO. The samples should correspond to the average production. The sampling extends to the entire sales stock in production or in the storage of certificate holders (Type 1 and 2). Defective products (rejects) are excluded from sampling if they are stored separately and are clearly labeled. Samples should usually be taken at the end of a production line if possible, preferably as bagged goods or directly before loading into silos or transport vehicles if bagged goods are not available.

The number of samples to be taken and the type of necessary tests are specified in Annex 4 and may not be changed without prior consultation with DIN CERTCO.

The factory inspection must be conducted for each certificate holder (Type 1 and 2) and each production site at least once a year. In exceptional cases, with approval from DIN CERTCO, the factory inspection can be conducted as a remote audit.

The document review for a certificate holder (Type 3) is conducted exclusively as a remote audit. If the certificate holder (Type 3) also stores DIN*plus*-certified wood pellets, the condition of the storage facilities (raw materials, finished products) must be documented through current photo documentation.

During the annual surveillance, all lists regarding wood pellet suppliers and outsourcing partners must be checked.

The annual surveillance inspection must be conducted even if there is a longer interruption, even if no production or bagging of wood pellets takes place during the surveillance period.

The agents of the surveillance body are entitled to control the company's operating and storage facilities, including their delivery warehouses and quality assurance measures, at any time during operating hours without prior notice and to take the necessary actions related to the surveillance.

External storage facilities located outside the production site must also be inspected as part of the factory inspection. If the distance to an external storage facility exceeds 50 km, the inspection can be conducted through photo documentation by the certificate holder or the responsible person.

Additionally, all certification-relevant evidence must be presented to the representatives of the surveillance body for review as required.

Records must be kept of the factory inspection or document review, which must be signed by the participants.

DIN CERTCO provides a factory inspection report or a document review report template for the use of inspection bodies and external auditors/inspectors (see Annex 3 and Annex 4). Recognized inspection bodies may use their own template. However, the contents of DIN CERTCO's report template, as specified in Annex 3, resemble the minimum requirements of a report and must be fully implemented. DIN CERTCO reserves the right to mandate the use of the report template for external inspectors/auditors who do not belong to an inspection body recognized by DIN CERTCO.

When using the report templates created by DIN CERTCO, only the current versions in their original form may be used. The templates can be obtained from the <u>DIN CERTCO Homepage</u>.

No changes may be made to the report templates of DIN CERTCO.

- Annex 1 Fuel-Related Technical Requirements
- Annex 2 Labeling Requirements
- Annex 3 Template Factory Inspection Report
- Annex 4 Template Document Review Report
- Annex 5 Sampling Requirements