

DIN Geprüft

Certification Scheme

Corrugated fibreboard

in accordance with

DIN 55468-1

(Edition: January 2017)

Foreword

DIN CERTCO was founded in 1972 by 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, persons, services as well as companies based on DIN standards and similar specifications. Due to its independence, neutrality, competence and many years of experience, DIN CERTCO enjoys a high reputation both at home and abroad.

In order to prove the functionality of the system and our competence as a certification body, we have been accredited, certified or recognised by independent domestic and foreign bodies in both the voluntary and legally regulated areas. <u>Our accreditations</u>.

The revision of the certification scheme was carried out in conjunction with the revision of the standard DIN 55468-1 in June 2015. This certification scheme defines the requirements for the corrugated fibreboard in accordance with the German national standard DIN 55468-1.

Compared to the consumer, the conformity mark "DIN-Geprüft" confirms that an independent, neutral and competent body has carefully examined and assessed the test criteria. The introduction of a corresponding certification mark is primarily intended to provide the consumer with information and guidance on his purchasing decision.

The monitoring of the production also ensures that the product quality is maintained even during the ongoing production. In addition to the General Terms and Conditions of DIN CERTCO, this certification scheme forms the basis for manufacturers and marketers of corrugated fibreboard and, where applicable, of products made of corrugated board, to label their products as "DIN-Geprüft". They thus document that their products meet all the requirements of the German national standard DIN 55468-1 and, in addition, the quality of their products remains constant.

Products made of corrugated cardboard receive the certification mark "DIN-Geprüft" when fulfilling the product requirements listed in section 3 according to the procedure described in this certification scheme.

All certificate holders can be accessed on the website of DIN CERTCO <www.dincertco.de>.

Start of validity

This certification scheme applies from 2017-01-01.

Modification

The following changes have been made to the Certification schmeme Corrugated fibreboard in accordance with DIN 55468-1 (Edition: 2006-11):

- Precision of the implementation of annual monitoring
- Editiorial changes

Prevoius edition:

Certification schmeme Corrugated fibreboard in accordance with DIN 55468-1 (2006-11)

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1 Scope

This certification scheme applies to corrugated fibreboard and corrugated board products and, in conjunction with the test specifications listed below, contains all the requirements for the awarding of the certification mark "DIN-Geprüft".

This certification scheme specifies requirements for the product itself as well as its testing, monitoring and certification.

2 Test and certification specifications

The basis for the test and certification are the following documents. For dated references only the referenced version applies. For undated references, the current edition of the referenced document, including all changes, shall apply.

DIN 55468-1 Corrugated fibreboard – Part 1: Requirements and testing

- this Certification Scheme
- the General Terms and Conditions of DIN CERTCO
- the respective schedule of fees of DIN CERTCO

3 **Product requirements**

3.1 Standard requirements

The standard DIN 55468-1 specifies grades of certain corrugated boards by specifying technical values and test methods. This standard applies to the corrugated board, except for one-sided corrugated board.

The detailed requirements for corrugated board are laid down in section 5 of DIN 55468-1. They include tests for each type of corrugated cardboard of the following parameters:

- Bursting strength
- Puncture resistance
- Edgewise crush resistance

4 Testing

4.1 General information

For the performance of the test required as the basis for the assessment and certification of the products, DIN CERTCO avails itself of the testing laboratories to which it has awarded the recognition.

4.2 Types of tests

4.2.1 Initial test

The initial test is a type test (model test, design test), which serves to determine whether the product meets the requirements of section 3 of this certification scheme.

4.2.2 Surveillance test

The monitoring test is carried out at recurring, fixed intervals (see also section 7) and is used to determine whether the certified product corresponds to the type-tested product in the production phase.

This test of the removed product samples is carried out according to section 7 of the standard DIN 55468-1. It is commissioned by DIN CERTCO and must be documented by a positive test report.

4.2.3 Supplementary test

A supplementary test will be carried out if supplements, extensions or modifications (see section 5.9 of the certification scheme) have been carried out on the already certified product which has an influence on the conformity with the requirements.

The form and scope of the supplementary test are specified in the individual case by DIN CERTCO in agreement with the testing laboratory.

4.2.4 Special test

A special test takes place:

- in the event of defects detected
- after resting production over a period of more than 6 months
- on a just cause of DIN CERTCO
- on the written application of a third party where the latter is particularly interested in the maintenance of a proper market activity in a competitive or qualitative manner

The form and scope of a special test shall be determined in accordance with the purpose in each individual case by DIN CERTCO in consultation with the testing laboratory.

If defects are detected during a special test, or if a special test is carried out due to the suspension of production, the certificate holder shall bear the costs of the special inspection procedure.

If, in the case of special tests, no deficiencies are identified at the request of third parties, the costs shall be borne by the third party submitting the application.

4.3 Sampling

The sampling in accordance with section 7.1 of the standard DIN 55468-1 takes place during inspections and is usually carried out by the commissioned inspector.

The manufacturer or the supplier shall provide the product samples to be tested free of charge and provide appropriate assistance during sampling. As a rule, the test samples are

sent by the manufacturer to the testing laboratory responsible for the test. The costs for this are borne by the manufacturer or the distributor (certificate holder).

The required sample size is:

| - | Initial test: | 5 samples of each grade of fibreboard, not smaller than 1,5 \mbox{m}^2 |
|---|-------------------------|--|
| - | Surveillance test: | 5 samples of each grade of fibreboard, not smaller than 1,5 m ² |
| - | Renewal of certificate: | 5 samples of each grade of fibreboard, not smaller than 1,5 m ² |

The samples are clearly and permanently marked. A record is made of the sample. The test material must arrive within 14 days in the laboratory responsible for the test.

4.4 Test procedure

Samples shall be conditioned as specified in section 7.2 of DIN 55468-1.

4.4.1 Bursting strength

Bursting strength shall be tested as specified in section 7.3 of DIN 55468-1.

4.4.2 Puncture resistance

Puncture resistance shall be tested as specified in section 7.4 of DIN 55468-1.

4.4.3 Edgewise crush resistance

Edgewise crush resistance shall be tested as specified in section 7.5 of DIN 55468-1.

4.5 Test report

The test laboratory shall notify the client of the results of the tests in a test report. This must be submitted to DIN CERTCO in the original.

The test report may not be older than 6 months at the time of application. In individual cases, older test reports may also be recognized if the test laboratory confirms in writing the validity of the information given in the test report.

The test report shall comply with DIN EN ISO / IEC17025, section 5.10 and shall include at least the following information:

- Name and address of the manufacturer
- Name and address of the applicant (if different from manufacturer)
- Test principles (standards and certification scheme) incl. date of issue
- Type of test (e.g. type test, supplementary test, etc.)
- Date of the test
- Results and assessment of the test
- Name and signature of the person responsible for the test

5 Certification

5.1 Application for certification

Applicants may be both producers and distributors of corrugated fibreboard and/or corrugated cardboard products. The certification within the meaning of this certification scheme is the conformity assessment of a product and Quality Management System of the manufacturing company by DIN CERTCO on the basis of test reports of the testing laboratories and inspection reports which it has approved. The products to be certified are checked for conformity (conformity) with the requirements listed in section 3.

A prerequisite for carrying out the test in accordance with this certification scheme is a prior assessment of the production site by an inspector of DIN CERTCO or by a monitoring agency recognized by DIN CERTCO. In this case, the QS measures for continuous self-monitoring and the corresponding recordings are checked.

A separate inspection must be carried out for each production facility, which must have a clear and detailed reference to the products under surveillance. On the basis of the inspection report, the manufacturer's QS system is checked for manufacturing conditions for compliance with the conformity of the products.

The right to use the certification mark "DIN-Geprüft" is granted by issuing a corresponding certificate

5.2 Classification of types and subtypes

Corrugated fibreboard which differs from each other in essential certification-relevant characteristics are defined as type/model. Characteristics relevant for certification are, for example, characteristics which significantly influence safety, function or handling, such as types of corrugated cardboard (single-corrugated corrugated cardboard or multi-corrugated corrugated cardboard), corrugated cardboard and corrugated cardboard types and hence a proprietary trade name. A separate certificate is issued for each type / model.

Subtypes are usually those of a type/model, which differ only in formal or non-certification-relevant features. They can be summarized on one certificate.

5.3 Conformity assessment

DIN CERTCO carries out the conformity assessment on the basis of the submitted application documents. In particular, the test report assesses whether the product meets the requirements of the certification scheme and the standard.

The applicant shall be informed in writing of any possible deviations by DIN CERTCO.

5.4 Certificate and the right to use the mark

After successful examination and conformity assessment of the submitted application documents, DIN CERTCO issues a certificate to the applicant and grants the right of use for the certification mark "DIN-Geprüft" in conjunction with a related registration number.



Structure of the registration number: 6W000

Corrugated fibreboard, possibly corrugated cardboard products for which the right of use has been granted for the certification mark "DIN-Geprüft", shall be marked with the symbol "DIN-Geprüft" and the related registration number.

Characters and registers number may only be used for the type for which the certificate has been issued and which corresponds to the type-tested corrugated cardboard.

A registration number is given to each type. The same registration number is given for execution types (subtypes) of a type (see section 5.2).

Darüber hinaus gelten die Allgemeinen Geschäftsbedingungen von DIN CERTCO.

5.5 Publications

All certificate holders can be viewed on the daily updated homepage of DIN CERTCO </br><www.dincertco.de>. Producers, users and consumers use this research possibility for obtaining information about the certified products.

In addition to the contact details of the certificate holder (telephone, fax, e-mail, homepage), the technical data of the corrugated board, possibly products made of corrugated board, can also be viewed there.

5.6 Validity of certificate

The certificate has a validity of 5 years. The validity period is indicated in the certificate. If the certificate is extinguished, the right to use the right to sign expires.

5.7 Renewal of certificate

If the certification is to be continued beyond the date specified in the certificate, an application must be submitted to DIN CERTCO for a renewal of certificate and a current positive test report before expiry of the validity period.

Proof of compliance with the requirements of the test and certification bases as set out in section 2 shall be carried out within the scope of an inspection in accordance with section 7.2 including sampling and inspection as specified in section 4.2.2.

5.8 Expiry of certificate

Insofar as the re-examination for standard conformity pursuant to section 4 has not taken place in good time before the end of the validity period, the right to use the "DIN-Geprüft" certification mark and the registration number expires without an explicit notification from DIN CERTCO.

In addition, the certificate may expire if:

- the monitoring measures referred to in section 7 are not carried out in a timely manner or incompletely,
- the certification mark "DIN-Geprüft" is abused by the certificate holder
- the requirements resulting from this certification program or its accompanying documents are not met,
- the applicable certification fees are not paid in due time,
- the conditions for granting the certificate are no longer fulfilled.

5.9 Modifications/Extensions

5.9.1 Modifications/Extensions to the product

The certificate holder is obligated to inform DIN CERTCO immediately of any changes to the product. DIN CERTCO decides, in consultation with the testing laboratory, to what extent an inspection according to section 4.2.3 is to be carried out and whether this is a significant change. The test report is forwarded by the test laboratory to DIN CERTCO.

If DIN CERTCO establishes a major change, the certificate expires with the associated registration number. For the amended product, an application for initial certification and the right of use for the certification mark "DIN-Geprüft" can be submitted again.

The certificate holder is also obliged to notify all changes to formal data of DIN CERTCO (e.g. certificate holder or its address).

The certificate holder can apply for an extension of the existing certificate at DIN CERTCO for further types of operation (subtypes) of the same type. DIN CERTCO decides whether a supplementary test is required by these supplements. If the prerequisites are fulfilled, the versions are included in the certificate for the already certified product and are considered to be part of it.

5.9.2 Amendment of the test basis

If the basic test specifications for the certification are modified, an application for the alteration of the certification shall be submitted within 6 months after receiving of notification from DIN CERTCO and, as a rule, after 12 months, proof of conformity with the modified test specifications shall be submitted in the form of a positive test report (see section 4.2.3).

5.10 Defects in the product

If deficiencies in a certified product being in the market are detected, the certificate holder is requested by DIN CERTCO in writing to eliminate the defects.

DIN CERTCO, in consultation with the testing laboratory, decides whether it is a serious or minor defect.

In the case of defects which directly or indirectly have an influence on safety or functional performance (serious defects), the certificate holder has to ensure that the products are no longer marked with the certification mark until the defects are eliminated.

The deficiencies must also be eliminated immediately on installed or in stock products. Within 3 months, the certificate holder must prove to DIN CERTCO by submitting a test report on a special test according to section 4.2.4 that the deficiencies have been removed and that the complained product meets the specified requirements again.

In the case of defects which do not have any influence on the safety or functional performance (minor defect), the certificate holder DIN CERTCO has to prove within 3 months and in a suitable way that the deficiencies of the complained product have been removed.

If the certificate holder fails to meet these deadlines, the certificate and therefore the right of use for the certification mark "DIN-Geprüft" will be withdrawn.

If there is still reason for the complaint, the certificate is initially suspended by DIN CERTCO and at the same time a final deadline for the elimination of defects is given. If the certificate holder fails to comply with the request or fails to comply with the deadline, or the removal of defect cannot be proved again, the certificate will be expired.

6 Self-monitoring by the certificate holder

The manufacturer must ensure that the product characteristics confirmed during the certification are maintained by means of appropriate quality assurance measures. This can be ensured by a factory production control, which is directly aligned to the product or production, and also by means of measures within the framework of a Quality Management System (QM System) according to the series of standards DIN EN ISO 9000 ff.

6.1 **Production-accompanying quality assurance**

The factory production control is the continuous monitoring of the production process by the manufacturer, which ensures the conformity of the manufactured products with the stipulated requirements.

Corresponding records shall be provided upon request by DIN CERTCO or its representatives. They must contain at least the following information:

- Designation of the test object
- Date of manufacture
- Date of the test
- Result of the test and if provided, comparison with the specified requirements
- Signature of the person responsible for the examination
- Date of recording

In the event of a negative result of an inspection, the manufacturer shall immediately take all measures to remedy the defect. Defective products are to be marked and separated. The test shall be repeated on a regular basis to determine whether the defect is repaired.

6.2 Quality Management System

DIN CERTCO recommends the establishment and certification of a quality management system according to the international standard DIN EN ISO 9000 ff.

7 External monitoring by DIN CERTCO

7.1 General information

An essential part of the certification is the continuous monitoring of the certified product during the entire duration of the certificate. Monitoring takes place annually.

DIN CERTCO verifies and evaluates the conformity of the product with the requirements laid down in the certification scheme as well as in the course of inspections the effectiveness of the self-responsible monitoring measures according to section 6.1.

7.2 Inspections

Within the scope of an inspection, DIN CERTCO or a third party commissioned by DIN CERTCO verifies the manufacturing and testing facilities as well as the quality assurance measures (QA measures) in determining whether they are suitable for the proper production.

The inspection shall also be used to determine whether the manufacturing conditions for continuous conformity of the products with the requirements of section 3 are met. During the inspection, representative samples are taken from production. The sample quantity depends on the provisions of section 4.3. The test scope is defined in section 4.4.

The samples taken are tested by a test laboratory recognized by DIN CERTCO. They should correspond to the average of production. Sampling covers the entire product sold by the manufacturer or in the warehouse. Defective products (scrap material) are excluded from sampling if they are stored separately and clearly marked.

Inspections shall be kept in the inspection report, which shall be signed by the parties concerned.