



TÜVRheinland®

DIN CERTCO

Precisely Right.



Certification Scheme

flustix NO PLASTICS
Content Free from Microplastics

(Edition: Februar 2024)

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. [Our accreditations.](#)

This certification scheme offers an option to mark plastic-free products and/or semi-finished products through the independent certification mark “flustix NO PLASTICS product content free from microplastics” if they qualify for this flustix certification. The labelling is carried out according to this one specific category: product content free from microplastics.

Through independent certification and regular monitoring by DIN CERTCO in cooperation with FLUSTIX GmbH, we offer consumers reliable guidance when purchasing products marked by flustix-label to protect the environment and helping innovative economic actors communicate their sustainability when it comes to plastic free products and semi-products.

The certification mark “flustix NO PLASTICS product content free from microplastics” creates trust for the consumers that an independent, neutral and competent body has carefully assessed the test and certification criteria.

The certification mark “flustix NO PLASTICS product content free from microplastics” is the first Europe-wide certification mark for plastic-free products registered as EU-Certification-Mark, which represents a test seal and a word as well as a picture mark protected by trademark law.

In addition to the general terms and conditions of DIN CERTCO and the testing, registration and certification regulations of DIN CERTCO, this certification scheme forms the basis for suppliers to mark their plastic-free products with the certification mark “flustix NO PLASTICS product content free from microplastics”. They thus document that their products meet all requirements of this certification scheme.

Plastic-free products receive the certification mark “flustix NO PLASTICS product content free from microplastics” if they meet the requirements listed in section 4 according to the procedure described in this certification scheme.

All certificate holders can be viewed on the daily up-dated homepage of DIN CERTCO (www.dincertco.tuv.com).

Start of validity

This certification scheme applies from 2024-02.

Modification

Compared to the Certification Scheme “flustix PLASTIC-FREE” (2022-02) the following changes were made:

- a) Removal in the document of the flustix PLASTIC-FREE seal for the entire-product, packaging and product itself and their requirements
- b) Specification of microplastics in sections 3.6 and 3.7
- c) Clarification of unavoidable residues in section 3.8
- d) Sections 3.9/ 4.1 and 4.2 removed
- e) Monitoring test specified in section 5.2.2
- f) Sampling specified in section 5.3
- g) Test execution specified in section 5.4
- h) Revision of the test procedure for product contents without microplastics for products and semi-finished products in section 5.4.2
- i) Clarification of the classification of types and subtypes in section 6.2
- j) Definition of subcertificates in section 6.4.1
- k) Definition of marking and identification in section 6.4.2
- l) Changes/additions specified in section 6.9
- m) Defects in the product or semi-finished product specified in section 6.10
- n) Sections 7 and 8 clarified
- o) Editorial changes

Earlier versions

Certification Scheme “flustix PLASTIC-FREE” (2022-02)

Certification Scheme “flustix PLASTIC-FREE” (2020-11)

Certification Scheme “flustix PLASTIC-FREE” (2020-06)

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1 Scope

This certification scheme applies to plastic-free, products and semi-finished products and contains, in conjunction with the test specifications listed below, all requirements for awarding the certification marks “flustix NO PLASTICS product content free from microplastics”.

This certification scheme establishes requirements depending on the certification mark that need to be met by the product or semi-finished product itself, as well as requirements relating to the associated testing, monitoring and certification.

2 Test and certification specifications

The basis for testing and certification are the documents listed below. For dated references, only the referenced version shall apply. For undated references the latest edition of the referenced document including any amendment applies.

| | |
|-------------------|---|
| DIN EN ISO 472 | Plastics – Vocabulary (ISO/TC 61/SC1) |
| ISO/TR 21960:2020 | Plastics – Environmental aspects – State of knowledge and methodologies |
| ECHA | ANNEX XV RESTRICTION REPORT, PROPOSAL FOR A RESTRICTION, VERSION NUMBER: 1, DATE: 11 January 2019, European Chemicals Agency (ECHA), Annankatu 18, PO BOX |

- this Certification Scheme
- [the general terms and conditions of TÜV Rheinland DIN CERTCO](#)
- [the testing, registration and certification regulations of DIN CERTCO](#)
- the schedule of fees in its most current version

The obligation to comply with laws and regulations governing the respective products is in no way affected by this certification scheme.

3 Definitions

The definitions apply to plastic-free products and packaging/semi-finished products of all kinds, in particular goods from the food and non-food (such as cosmetics), fashion, home and garden (including compost and fertilizers or soil additives) or leisure sectors. In addition, the definitions of plastic-free materials intended for further processing apply.

The term plastic-free in the sense of the definition does not intend to make a statement about how a product or semi-finished product is to be classified in terms of quality.

3.1 Products

Products are defined in this certification scheme as the goods or contents of a consumer good, such as a piece of clothing or tableware, cosmetics or cleaning items (detergents).

3.2 Packaging

Packaging refers to containers, wrappings and outer packaging of a product or a semi-finished product for example sales packaging or cardboard packaging, such as those used for shipping or transporting consumer goods.

3.3 Consumer

A consumer is the end user who no longer resells the consumer goods in the form delivered to him/her on a commercial basis.

3.4 Semi-finished products

Semi-finished products are intermediate products or materials intended for further processing.

3.5 Polymer

The term polymer is used to describe chemical compounds consisting of chain or branched molecules (macromolecules), which in turn consist of a large number of identical or similar units known as monomers.¹

3.6 Plastics

Plastics are organic macromolecular compounds obtained by polymerization, polycondensation, polyaddition or a similar process of molecules with a lower molecular weight or by chemical modification of natural molecules. Other substances or materials may also be added to these compounds. The starting materials for plastics have a natural basis (fossil raw materials), which are specifically produced by chemical reactions to form polymeric materials. A distinction is made between elastomers, thermoplastics and duroplastics.²

The term plastic refers to plastic of any type and origin.

3.7 Microplastic

The term microplastics refers to a material consisting of solid polymer particles to which additives or other substances may have been added.

According to ISO/TR 21960:2020, a distinction is made between microplastics and large microplastics:

1. Microplastics: all solid plastic particles insoluble in water with dimensions between 1 µm and 1000 µm (= 1 mm)
2. Large microplastics: all solid plastic particles insoluble in water with dimensions between 1000 µm und 5000 µm (= 5 mm)

3.8 Primary microplastic

Primary microplastics in this certification scheme describes industrially produced plastic particles in the order of magnitude according to section 3.7, which are used, for example, as

¹ vgl. IUPAC Compendium of Chemical Terminology (the "Gold Book")

² Regulation (EU) No 10/2011; DIN EN 13130-1; DIN EN ISO 472

additives in cosmetics and/or detergents, cleaning agents and cleaning products. In this certification scheme are microplastics from technical point of reason by a size of 1.2 µm examined.

3.9 Unavoidable residues

Unavoidable residues describe plastics which can arise, for example, due to contamination through environmental influences, residues in materials used, contamination in the manufacturing process, as a result of the use of recycled materials or during packaging, transport, storage, rearrangement and packing.

Unavoidable residues must not exceed 0.1% of the total weight of the relevant product or semi-finished product marked as plastic-free.

Information on the limit value must always be stated precisely in test reports for the test carried out by the testing laboratory.

4 Product requirements

4.1 Content free from microplastics

A technically manufactured product content does not contain microplastic if, taking into account Section 3.9, it consists of components, materials, contents and/or materials that do not contain primary microplastic according to section 3.8 in the range from 1.2 µm upwards.

The method of production, the auxiliary materials used, the transport before and after purchase by the consumer or processor and their presentation by the point of sale have no influence on the classification as plastic-free.

5 Testing

5.1 General information

DIN CERTCO uses its recognized testing laboratories to carry out the necessary tests as a basis for the evaluation and certification of products and semi-finished products.

5.2 Types of tests

5.2.1 Initial test (type testing)

The initial test is a type test (type examination) which serves to determine whether the product or semi-finished product meets the requirements of section 4 of this certification scheme.

5.2.2 Verification test (control test)

Verification testing is carried out every two years and serves to determine whether the certified product or semi-finished product corresponds to the type-tested and certified product or type-tested and certified semi-finished product in the production phase. It is commissioned by DIN CERTCO and must be verified by a positive test report in due time for test performed by recognized to DIN CERTCO testing laboratory.

The scope of the verification test corresponds to the initial test in section 5.2.1

5.2.3 Supplementary testing

Supplement testing is performed when supplements, expansions or additions (see section 6.9) are intended for a certified product or certified semi-finished product which have an influence on conformity with the underlying requirements.

The type and scope of supplementary testing will be determined by DIN CERTCO in individual cases in coordination with the laboratory.

5.2.4 Special test

A special test is conducted when

- defects are detected
- the production has been suspended for a period of more than 6 months
- required by DIN CERTCO - reasons to be specified
- requested in writing by a third party if a particular interest in the maintenance of proper conduct of market procedures in relation to competition or quality is involved.

The type and scope of special test will be determined by DIN CERTCO in each individual case, where applicable in coordination with the laboratory.

If defects are detected in a special test, or if a special test is performed due to a stop in production, then the certificate holder shall bear the costs of the examination procedure.

Should the special test at the request of a third party reveal no defects, the costs shall be borne by said third party.

5.3 Sampling

For initial and verification testing the applicant (usually manufacturer or seller) per product ment to get certified or per semi-finished product ment to get certified has to deliver test samples (min. 40 g of mount of substance) and a list of the ingredients of the product/semi-finished product is made to the testing laboratory which is commissioned with that testing. The applicant bears the costs for this.

Questions that may arise regarding the scope of the test, the number of samples, the execution of the tests and the associated sample preparation, etc. must be clarified directly between the commissioned laboratory and DIN CERTCO as the certification body.

5.4 Test procedure

5.4.1 General information

The testing laboratory recognized by DIN CERTCO carries out the test after receipt of the test samples. The testing laboratory determines the scope of testing after consultation with the certification body DIN CERTCO.

5.4.2 Testing of content free from microplastics for products and semi-finished products

The aim and purpose of carrying out the test is a proper analysis of soluble consumer goods (products or semi-finished products) such as detergents or cosmetics for the presence of microplastics. It is checked whether particulate ($\geq 1.2 \mu\text{m}$) plastic is contained in the product/semi-finished product, which does not dissolve during use and has a weight content of $> 0.1\%$. Microplastics are detected spectroscopically and/or thermoanalytically using: RAMAN imaging or (ATR) FTIR spectroscopy.

If the spectrum can be assigned to a plastic in this way, the determined solids content (G) is used to make a statement about the solid content and thus about the freedom from (micro) plastics.

The following results of the test can be expected:

- Product can be declared as plastic-free if $G \leq 0.1\%$ or if $G > 0.1\%$ the solid can be assigned to plastic-free ingredients.
- Product cannot be declared as plastic-free if $G > 0.1\%$ and the solids content contain one or more plastics.

5.5 Test report

The testing laboratory informs the client of the test results by means of a test report. An original copy of it shall be submitted to DIN CERTCO or one PDF copy sent directly by the testing laboratory to DIN CERTCO.

As a rule, the test report may not be older than 6 months at the time of application. In individual cases, older test reports can be recognized if the testing laboratory confirms the validity of the results by means of a test report.

The test report must correspond to DIN EN ISO/IEC17025 and must at least contain the following information:

- Name and address of the manufacturer
- Name and address of the applicant (if different than manufacturer)
- Test basis (certification scheme) with date of issue
- Type of test (e.g. type test, additional test, etc.)
- Test date
- Results and evaluation of test
- Name and signature of the individual responsible for the test
- Product description including picture, dimensions to clearly identify the test sample

6 Certification

Certification in the sense of this certification scheme relates to the assessment of conformity by DIN CERTCO of a product or a semi-finished product on the basis of test reports submitted by testing laboratories recognized by DIN CERTCO.

The products or semi-finished products to be certified are checked for compliance (conformity) with the requirements listed in Section 4 and subsequently monitored.

The right to use the certification mark "flustix NO PLASTICS product content free from microplastics" will be granted by the issuing of the respective certificate.

6.1 Application for certification

Applicants can be either manufacturers in accordance with § 4 of the Product Liability Act (ProdHaftG - Produkthaftungsgesetz) or be a distributor who is responsible for the products or semi-finished products within the meaning of Bring product liability law into circulation.

The following documents must be submitted by the applicant to DIN CERTCO:

- The original application for certification, with a legally binding signature
- Current test report in accordance with section 5.5 on an initial test (see section 5.2.1), unless the test was commissioned by DIN CERTCO
- Template product/packaging-layout, if flustix-seal is ment to be put on product
- Description of product or semi-finished product and its usage
- All information about the composition/ingredients
- Listing of all raw materials and additives used with indication of the respective mass fractions in %
- Information as precise as possible about auxiliary materials used in production and possible contamination entry paths
- Short process description of all production steps of the manufacturer

After receipt of the application, the applicant will receive a confirmation of order from DIN CERTCO with a procedure number and information on further processing.

6.2 Classification of types and subtypes

Plastic-free products or semi-finished products, which differ in essential certification-relevant characteristics, are defined as type or model. Certification-relevant characteristics are e.g. the different materials (composition of a product/semi-finished product) or properties(usage) that significantly influence safety, function or handling and are therefore sold under a separate trade name. A separate certificate is issued for each type/model.

Such certification-relevant properties include, for example, products/semi-finished products:

- ingredients and composition
- forms
- product characteristics that go beyond differences in dimensions
- chemical structures
- recipes

As a rule, subtypes are those products or semi-finished products of a type/model that only differ from each other in formal and non-certification-relevant features, e.g. size/volume, etc. that can be assigned to a production batch. They can be summarized on one certificate if a test report from the testing laboratory recognized by DIN CERTCO is available. The ingredients used and their composition of the subtypes must be confirmed as identical to the tested type/model by the test report.

The classification of types and subtypes is carried out by DIN CERTCO, if necessary, in consultation with the testing laboratory.

6.3 Conformity assessment

On the basis of the documents submitted, DIN CERTCO conducts the conformity examination. The assessment is made with the aid of the test report as to whether the product or semi-finished product meets the requirements of the certification scheme.

The applicant will receive written notification from DIN CERTCO in the event of any possible deviations.

6.4 Certificate and the right to use the mark

After successful testing and conformity assessment of the application documents submitted, DIN CERTCO issues a certificate to the applicant and issues the right to use the respective certification mark “flustix NO PLASTICS product content free from microplastics” in conjunction with the respective registration number.

6.4.1 Sublicenses (sub-certificates)

The sub-certificate must be issued if a certified type/model of a product or semi-finished product is brought onto the market by a company other than the main certificate holder or under a different trademark than that specified in the main certificate. The prerequisite for issuing sub-certificates is that the tested and certified product for which a main certificate was issued after the positive conformity assessment and the product for which a sub-certificate was applied for are identical. A sub-certificate is issued for products or semi-finished products if they comply with a main certificate in relation to:

- ingredients and composition
- forms
- product characteristics that go beyond differences in dimensions
- chemical structures
- recipes

In this case, an additional laboratory test is not necessary. The validity of the sub-certificate depends on the main certificate issued for the type/model.

If a product or semi-product deviates from the tested type/model, it is not possible to issue a sub-certificate because both products or both semi-products (main and sub-certificate) are not identical.

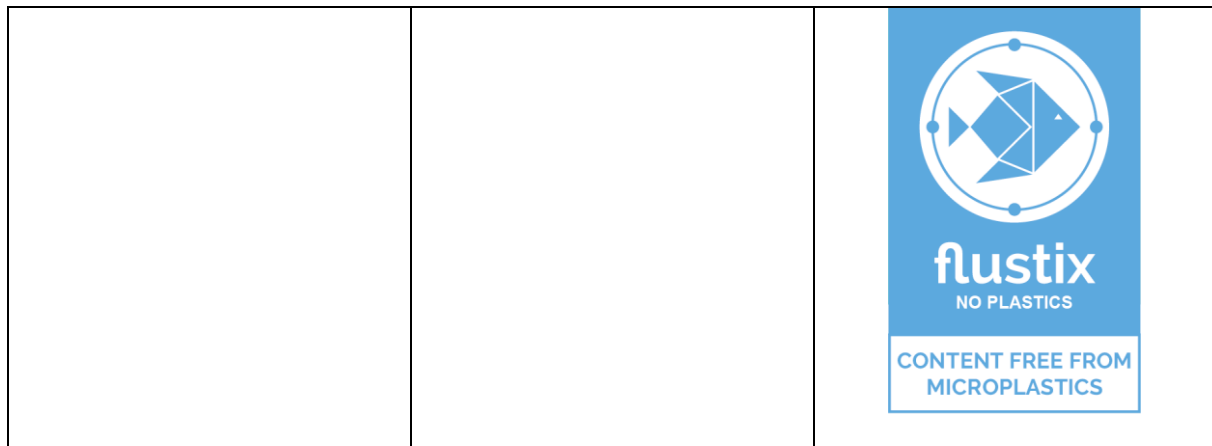
A sub-certificate can be issued with its own registration number.

When the main certificate is suspended and expires, the sub-certificate and the associated right to use the mark for sub-certificate holders automatically expire.

6.4.2 Labelling and identification

Plastic-free products or semi-finished products for which the right to use the certification mark “flustix NO PLASTIC product content free from microplastics” has been granted must be marked with this certification mark and the associated registration number.

| Certification object | Structure of the register number | Certification marks |
|---------------------------------|----------------------------------|---------------------|
| Content free from microplastics | FPM000 | |



The seal and registration number may only be used for the type/model for which the certificate was issued and which corresponds to the type-tested product or the semi-finished product. A registration number is assigned for each type/model.

The same registration number is issued for versions (subtypes) of a type/model (see Section 6.2), because they are listed in a certificate.

In addition are valid:

- General Terms and Conditions of DIN CERTCO as well
- DIN CERTCO's Testing, Registration and Certification regulations.

6.5 Publications

All certificate holders can be viewed on the homepage of DIN CERTCO www.dincertco.de and via the homepage of FLUSTIX www.flustix.com. FLUSTIX is responsible itself for updating its own website.

Manufacturers, users and consumers use this research possibility for obtaining information on certified products.

6.6 Validity of certificate

The certificate is valid for 5 years. The period of validity is shown on the certificate. On expiry of the certificate, the right to use the mark also expires.

6.7 Renewal of certificate

If the certification shall continue to apply beyond the date shown on the certificate, DIN CERTCO must receive a current positive test report in good time before the validity expires. DIN CERTCO carries out the conformity assessment on the basis of the test report.

Proof of conformity with the requirements of the testing and certification principles according to section 2 is provided in the scope of an initial test according to section 5.2.1, which is assessed by DIN CERTCO. Documents are assessed by DIN CERTCO to confirm conformity in accordance with Section 5.4.2 and to issue the certificate for a further 5 years.

6.8 Expiry of certificate

If a new evaluation for conformity in accordance with section 5.2.1 has not taken place in good time before the end of the validity period, the right of use of certification mark “flustix NO PLASTICS content free from microplastics” expires and for the associated registration number as well expires, without the need for express notification from DIN CERTCO.

Furthermore, certificates can expire if, for example:

- the verification according to section 8 is not performed punctually or completely,
- the certification mark “flustix NO PLASTICS content free from microplastics” is misused by the certificate holder.
- the requirements laid down in the certification scheme or its accompanying documents are not fulfilled.
- the certification fees are not paid on the due date.
- the prerequisites for the issuing of the certificate or confirmation of acceptability are no longer fulfilled.

6.9 Alterations/Amendments

6.9.1 Alteration/Amendment to product or semi-finished product

The certificate holder is obliged to notify DIN CERTCO in written of all alterations to that are subject to certification. DIN CERTCO will decide in coordination with the laboratory the extent to which testing according to Section 5.2.3 must be performed and whether the change is significant. The respective test report shall be forwarded to DIN CERTCO by the laboratory.

If DIN CERTCO detects a significant change, the certificate with the associated registration number expires. A new application for initial certification and the right to use the certification mark “flustix NO PLASTICS content free from microplastics” can be submitted for the changed product. A new registration number is assigned for the changed product or the changed semi-finished product.

The certificate holder is still obliged to make any changes to formal information (e.g. change of name in relation to the certificate holder or his address).

The certificate holder may apply to DIN CERTCO for an extension of the existing certificate for further design-types (sub-types) of the same type. It is for DIN CERTCO to decide whether these amendments require a complementary examination. The design-types shall be entered in the certificate for the already certified product and provided that the conditions are fulfilled, shall be regarded as an integral part of same (see section 6.2).

6.9.2 Alterations to the basic test specifications

If the basic test specifications for the certification are modified, an application for the alteration of the certification shall be generally submitted within 6 months of receiving notification from DIN CERTCO, and, as a rule, after 12 months, proof of conformity with the modified examination specifications shall be submitted in the form of a positive test report, if applicable (see Section 5.2.3).

6.10 Defects in products or semi-finished products

In the event that a certified product or semi-finished product on the market is found to be defective, the certificate holder shall be summoned in written by DIN CERTCO to rectify the defects.

The manufacturer/seller must ensure that, until the defects have been rectified the products or semi-finished products are no longer marked with the mark of conformity “flustix NO PLASTICS content free from microplastics”.

The defects must also be rectified without delay in installed products or semi-finished products in storage. The manufacturer/seller must submit proof to DIN CERTCO within 3 months, in the form of a test report on a special test in accordance with section 5.2.4, that the defects have been rectified and that product or semi-finished product in question again fulfils the stipulated requirements.

Should the manufacturer/seller fail to observe these deadlines, the right for usage of certification mark “flustix NO PLASTICS content free from microplastics” will no longer be permitted.

If there is still reason for a complaint, DIN CERTCO will initially suspend the certificate and at the same time grant a final deadline for the defects to be rectified. If the certificate holder does not comply with the request or does not do so within the set deadline, or if the elimination of the defects cannot be proven again, the certificate and the sub-certificates, if also present and associated with this main certificate, expire.

7 Surveillance by manufacturer

The manufacturer/seller must ensure, by suitable quality management measures, that product or semi-finished product characteristics confirmed by the certification are maintained.

This can be accomplished by means of an in-house factory production control (FPC) focused on the product or semi-finished product itself or on their production and, in addition, can be guaranteed within the framework of a Quality Management System (QM-System) in accordance with the standard series DIN EN ISO 9000 ff.

DIN CERTCO strongly recommends the installation and certification of the quality management system in conformity with the standard series DIN EN ISO 9000 ff.

8 Verification by DIN CERTCO

An essential part of the certification is the constant surveillance of the certified product or semi-finished product during the entire term of the certificate validity. The surveillance takes place in regular intervals of 2 years. DIN CERTCO evaluates and assesses the conformity of the product/semi-finished product with the requirements specified in the certification scheme for a verification test in accordance with the initial test according to clause 5.2.1.