



# Certification Scheme

**flustix LESS PLASTICS**

Edition: July 2024

The certification program allows for the certification of certain products and materials intended for further processing and containing no or only minimal plastics, with the independent "flustix LESS PLASTICS" seal, provided they meet the criteria for one of the "flustix LESS PLASTICS" marks. There is an option to certify raw materials, product components, as well as packaging or their contents separately. To clearly declare the certified goods to end consumers and/or other affected parties, the labeling is done according to three specific categories:

- Total Product
- Product
- Packaging

In collaboration with approved and recognized testing partners, flustix GmbH and its accredited partners provide consumers with a reliable guidance system for low-plastic purchases, support environmental and resource protection, and enable companies to transparently highlight their careful handling of the valuable material plastic.

The "flustix LESS PLASTICS" seals communicate to consumers that impartial, independent, and knowledgeable entities have intensively analyzed the testing standards and thoroughly evaluated them before awarding the seal.

The "flustix LESS PLASTICS" mark is registered as a European certification symbol for low-plastic goods, consumer goods, products, or packaging, secured both as a testing seal and as a trademark protected word and image mark.

In combination with the general business conditions of the issuing accredited certification authority, this certification program provides manufacturers and distributors of low in plastic products with the basis to label their items with the "flustix LESS PLASTICS" seal, confirming that all requirements of the certification program have been independently checked and met by several recognized entities.

Low-plastic materials, semi-finished products, and products receive the "flustix LESS PLASTICS" seal if they meet the conditions aimed in Section 4 and have undergone and passed the process described in the certification program.

A current list of certificate holders can be viewed on the website [www.flustix.com](http://www.flustix.com).

### **Validity Start**

The validity of this certification program starts from July 2024.

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Previous Editions:

Certification scheme „flustix PLASTICFREE“ (2020-06)

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Certification scheme „flustix PLASTICFREE“ (2022-02)

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## 1 Scope

The certification program applies to low-plastic consumer goods, products, packaging, as well as semi-finished products. It includes all requirements for awarding the ‘flustix LESS PLASTICS - Total Product’, ‘flustix LESS PLASTICS - Product’, and ‘flustix LESS PLASTICS - Packaging’ certification marks, in combination with the testing criteria listed below.

### Definition of LESS PLASTICS

"LESS PLASTICS" identifies consumer goods, products, packaging, and semi-finished products where plastic constitutes a minor proportion of the overall composition and does not exceed a specified threshold. These thresholds are precisely defined in the specific categories of the certification seal and serve as measurable standards for evaluation and certification. The precise quantification of the maximum absolute content of plastic is indicated on all flustix LESS PLASTICS seals and establishes the reference value for the meaning of LESS PLASTICS.

The LESS PLASTICS certifications focus on limiting the plastic content in consumer goods, products, packaging, and semi-finished products to a defined, low amount, without making comparisons to other products or industry standards.

As a result, a clear, measurable, and verifiable statement is made and transparently communicated through the LESS PLASTICS seals to consumers (B2C) and businesses (B2B).

This certification program defines requirements based on the certification mark for consumer goods, products, packaging, or semi-finished products, as well as their testing, monitoring, and certification.

## 2 Test and certification specifications

The testing and certification are based on the documents listed below. Only the cited version applies to dated references. For undated references, the latest version of the referenced document, including all changes, always applies.

DIN EN ISO 472	Plastics - Vocabulary (ISO/TC 61/SC1)
DIN EN ISO 24551:2020-08	Ergonomics - Accessible design - Auditory guidance for consumer products
DIN EN ISO 14025:2011-10	Environmental labels and declarations - Type III environmental declarations - Principles and procedures
DIN EN ISO 472/A1:2019-03	Plastics - Vocabulary - Amendment 1: Additional entries (ISO 472:2013/Amd.1:2018); Trilingual version EN ISO 472:2013/A1:2018
DIN EN 643	Paper, cardboard and paperboard - European list of standard grades of paper and board for recycling; German version EN 643:2014
DIN EN 61000-6-7; VDE 0839-6-7:2015-12	Electromagnetic compatibility (EMC) - Part 6-7: Generic standards - Immunity requirements for equipment intended to perform functions in a safety-related system (functional safety) in industrial locations
DIN EN 13130-1	Materials and articles in contact with foodstuffs - Substances subject to limitation - Part 1: Guide to the test procedures for the specific migration of substances from plastics into foods and food simulants and the determination of substances in plastics and the selection of conditions of exposure to food simulants

Directive 94/62/EC	Directive of the European Parliament and of the Council of 20 December 1994 on packaging and packaging waste
Proposal for a Regulation	Proposal for a Regulation of the European Parliament and of the Council on packaging and packaging waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904, and repealing Directive 94/62/EC
VerpackG	Packaging Act (Germany) - Act on the placing on the market, the return and the high-quality recycling of packaging
TEXTE 78/2023	Published by the German Federal Environment Agency (2023): "Determination of the proportion of highly recyclable system participation obligation packaging on the German market"
Regulation (EU) No. 10/2011	Commission Regulation on plastic materials and articles intended to come into contact with food
Guidelines (2021/C 216/01)	Commission Guidelines on single-use plastic items in accordance with Directive (EU) 2019/904 of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment (2021/C 216/01)
Directive (EU) 2019/904	Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment
ECHA	ANNEX XV RESTRICTION REPORT, PROPOSAL FOR A RESTRICTION, VERSION NUMBER: 1, DATE: 11 January 2019, European Chemicals Agency (ECHA), Annankatu 18, PO BOX
Regulation (EC) No. 1907/2006	Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
Regulation (EU) 2023/2055	Commission Regulation (EU) 2023/2055 of 25 September 2023 amending Annex XVII to Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards synthetic polymer micro particles
EWKVerbotsV	Regulation on the prohibition of the placing on the market of certain single-use plastic products and products made of oxo-degradable plastic (Single-Use Plastic Prohibition Regulation)
Biowaste Ordinance - BioAbfV	Ordinance on the Utilization of Biowastes on Soils (Biowaste Ordinance - BioAbfV)
Regulation (EU) No. 1007/2011	Regulation of the European Parliament and of the Council of 27 September 2011 on the names of textile fibres and related labelling and marking of the fibre composition of textile products, Article 7

Regulation (EU) 2019/1009

Regulation of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) No. 1069/2009 and (EC) No. 1107/2009 and repealing Regulation (EC) No. 2003/2003

- This Certification scheme
- "Positive Analysis Result" form
- General Terms and Conditions of the Certification Partner
- The Testing, Registration, and Certification Regulations of the Certification Partner
- The corresponding Fee Schedule of the Certification Partner

Any prevailing obligations to comply with the laws and regulations applicable to the respective products are not affected by this certification program, and compliance with these lies within the responsibility of the distributor.

### 3 Definitions

The definitions apply to low-plastic consumer goods, products, packaging as well as to certain semi-finished products and raw materials of all kinds intended for further processing. In particular, this applies to goods from the food and non-food sectors (e.g. products for the reception and transfer of food), home and garden (e.g. compost and soil aids as well as equipment), textile products (fashion) or everyday leisure goods (e.g. sports articles).

If a consumer product is offered and marketed without packaging, these definitions apply only to the product itself. The term LESS PLASTICS according to its definition does not include any classification of the quality of consumer goods, products, packaging as well as semi-finished products and raw materials of all kinds intended for further processing.

#### 3.1 Consumer goods

Consumer goods are goods produced and traded for the private use of consumers. A consumer good consists of the product and its packaging ("total product"). If a consumer good is offered and/or put into circulation without packaging at the final stage of trade, this definition refers only to the product itself.

Product intended for purchase and personal rather than professional use by an individual.<sup>1</sup>

##### 3.1.1 Products

Goods offered for sale on the market by the manufacturer or his agent. Without packaging.<sup>2</sup>

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<sup>1</sup> Cf. DIN EN ISO 24551:2020-08.

<sup>2</sup> Cf. DIN EN 61000-6-7; VDE 0839-6-7:2015-12.



### 3.1.2 Packaging

Packaging is a product made of any material for the containment, protection, handling, delivery or presentation of goods, which can range from raw materials to finished products, and which is passed on from the manufacturer to the distributor or the consumer; and

1. are typically offered to the consumer as a sales unit consisting of the product and packaging (sales packaging); sales packaging also includes packaging that is filled by the final distributor in order to
  - a) to enable or support the delivery of goods to the end user (service packaging); or
  - b) to enable or support the dispatch of goods to the end user (dispatch packaging),
2. contain a certain number of sales units as referred to in point 1 and are normally offered to the consumer together with the sales units or are used to fill sales shelves (repackaging); or
3. facilitate the handling and transport of goods in such a way that direct contact with the goods and damage caused in transit are avoided and the goods are not normally intended for distribution to the consumer (transport packaging); containers for road, rail, sea or air transport are not transport packaging.<sup>3</sup>

### 3.1.3 Consumer

A natural person who purchases and/or utilizes goods, real estate, assets, or services for private purposes.<sup>4</sup>

## 3.2 Semi-finished products

Product that is delivered after partial processing but requires further processing to become ready for use.<sup>5</sup>

## 3.3 Polymer

Substance consisting of molecules characterized by a chain of one or more types of monomer units.<sup>6</sup> These molecules must fall within a specific molecular weight range, where the differences in molecular weight are primarily due to variations in the number of monomer units.

A polymer includes the following:

- a) A simple majority by weight of molecules containing at least three monomer units, each of which has formed a covalent bond with at least one additional monomer unit or other reactant;
- b) Less than a simple majority by weight of molecules with the same molecular weight.

Within this definition, a "monomer unit" refers to the bonded form of a monomer substance in a polymer.<sup>7</sup>

The following polymers are excluded from consideration in this certification program:<sup>8</sup>

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<sup>3</sup> Cf. §3 VerpackG, as well as Article 3 number 1 of Directive 94/62/EC

<sup>4</sup> Cf. DIN EN ISO 14025:2011-10, reference [ISO/IEC, The consumer and standards - Guidance and principles for consumer participation in standards development. COPOLCO, March 2003]

<sup>5</sup> Cf. DIN EN 12258-1:2012-08

<sup>6</sup> Cf. IUPAC Compendium of Chemical Terminology (the "Gold Book")

<sup>7</sup> Cf. Article 3(5) of Regulation (EC) No. 1907/2006 (REACH Regulation); EWKVerbotsV (§2 Nr.2)

<sup>8</sup> Cf. Regulation (EU) 2023/2055 of the Commission dated 25 September 2023 amending Annex XVII to Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) with respect to synthetic polymer micro particles, ANNEX XVII Entry 78;

Polymers resulting from a polymerization process that has occurred in nature, regardless of the method by which they were extracted, and which are not chemically modified substances.

### 3.4 Plastics

Materials composed of a polymer [as defined in Article 3(5) of Regulation (EC) No. 1907/2006 of the European Parliament and of the Council], to which additives or other substances may have been added, and which can serve as the main structural component of final products, excluding natural polymers that have not been chemically modified.<sup>9</sup>

These compounds may also include other substances or materials. The raw materials for plastics are naturally based (fossil or renewable resources), which are deliberately transformed into polymeric materials through chemical reactions. These include elastomers, thermoplastics, and thermosets.<sup>10</sup>

This definition does not differentiate based on the raw materials for polymers that are naturally based (fossil or renewable resources) and are specifically manufactured into polymeric materials through chemical reactions.

### 3.5 Fresh fibre paper

Fresh fibre paper refers to paper, board and cardboard whose fibre input consists exclusively of virgin fibre materials and whose production consists exclusively of virgin fibre materials.<sup>11</sup>

### 3.6 Waste paper

Designation for paper, cardboard, and paperboard, based on natural fibers, suitable for recycling, consisting of:

- Paper, cardboard, and paperboard in any form;
- Products primarily made of paper, cardboard, and paperboard, which may contain other components that cannot be separated by dry sorting, such as coatings and composites, spiral bindings, etc..<sup>12</sup>

#### 3.6.1 Paper

A flat material, essentially made of plant-based fibers, with a mass per unit area of  $\leq 225$  g/m<sup>2</sup>, formed by dewatering on a screen, subsequently compacted and dried.<sup>13</sup>

#### 3.6.2 Paperboard

A general term for solid board and/or corrugated board.<sup>14</sup>

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Annex XVII, Schedule 15 Regulation (EC) No. 1907/2006 No. 5 Regulation (EU) No. 1907/2006 (REACH Regulation); ANNEX XVII RESTRICTION REPORT, PROPOSAL FOR A RESTRICTION, VERSION NUMBER: 1, DATE: 11 January 2019, European Chemicals Agency (ECHA), Annankatu 18, PO BOX); Entry 78 Regulation (EC) No. 1907/2006

<sup>9</sup> Cf. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH); DIN EN ISO 472/A1:2019-03

<sup>10</sup> Cf. Regulation (EU) No. 10/2011; DIN EN 13130-1; DIN EN ISO 472

<sup>11</sup> Cf. DIN 6730:2017-09

<sup>12</sup> Cf. DIN EN 643:2014-01

<sup>13</sup> Cf. DIN 6730:2017-09

<sup>14</sup> Cf. DIN 6730:2017-09

### 3.6.3 Cardboard

Packaging material made of cardboard or paperboard.<sup>15</sup>

### 3.7 Residues and contamination

Residues describe substances or materials that remain in the product or semi-finished product after the production process, such as plastics, which may result from migration from packaging material, contamination by environmental influences, residues in used materials, impurities in the manufacturing process, due to the use of recycled valuable materials, or during packaging, transport, storage, and shelving.<sup>16</sup>

Residues and contaminations must not exceed 0.2 % of the total weight of the concerned consumer goods, product, packaging, or semi-finished product marked as LESS PLASTICS.<sup>17</sup> Defined contamination limits for specific product groups are harmonized through a uniform threshold, promoting innovation by setting the limit more stringent than legal requirements.

### 3.8 Technical unavoidability

If a product, consumer good, packaging, or semi-finished product contains plastics that are currently unavoidable due to existing technology (e.g., plastics in paper manufacturing from recycled materials, and/or existing national or international legislation on the recyclability of packaging), they are considered low-plastic according to the guidelines applicable to the respective product group.<sup>18</sup>

The tolerance limit for plastic in packaging in this certification program refers to the Packaging Act. If the main material component (such as paper, paper-based materials, metals, ceramics, glass, or natural fibers that are not made of plastic) constitutes more than 95 percent of the total mass and thus contains a maximum of 5 percent foreign material, this packaging is intended for recycling in the corresponding waste stream of the main material. This certification program considers only plastic as the allowable foreign material content according to Section 3.4.

A product or semi-finished product made of fresh fiber paper is considered low in plastic if it contains plastic that is technically necessary to ensure the functionality of the product or semi-finished product or contributes to its durability.

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<sup>15</sup> Cf. DIN 6730:2017-09

<sup>16</sup> Cf. DIN ISO 13022:2014-06

<sup>17</sup> Cf. Regulation (EU) No. 1007/2011 of the European Parliament and of the Council of 27 September 2011 on textile fibre names and related labelling and marking of the fibre composition of textile products, Article 7; Regulation (EU) 2019/1009 of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) No. 1069/2009 and (EC) No. 1107/2009 and repealing Regulation (EC) No. 2003/2003, p. 64, Annex II, item 5.

Bio-Waste Ordinance (BioAbfV), as recast by Bek. v. 4.4.2013 I 658; last amended by Art. 1 V v. 28.4.2022 I 700; 2023 I No. 153, § 4 "Requirements regarding pollutants and other parameters", p. 7 f., item 4

<sup>18</sup> Cf. Packaging Act (VerpackG) § 3 (5) in conjunction with § 16 (3) Sentence 4 Requirements for Recyclin; Proposal for a Regulation of the European Parliament and of the Council on packaging and packaging waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904 and repealing Directive 94/62/EC, Article 47, paragraph 4; Federal Environment Agency (Ed.), (2023) "Determination of the proportion of highly recyclable system participation obligation packaging on the German market"

## 4 Requirements for LESS PLASTICS Packaging/Product/Total product

### 4.1 LESS PLASTICS Packaging

A packaging (according to Section 3.1.2) is considered low in plastic if it consists of components, materials, content, or raw materials that contain minor plastics according to Section 3.4 up to a maximum of 5 % of the total weight of the concerned consumer good, semi-finished product or packaging marked as LESS PLASTICS and thus may be introduced into the determined material recycling stream.<sup>19</sup> To promote innovation, seal graphics and certificates display contained plastic contents of maximum 3.5 % or 2 % upon successful certification. For virgin fiber-based packaging considered low in plastic, paints and inks as polymeric materials are excluded from the calculation of the plastic content.<sup>20</sup>

Raw materials and semi-finished products intended to be processed into packaging according to Section 3.1.2 are subject to the requirements defined in Section 4.1.

### 4.2 LESS PLASTICS Product

A product (according to Section 3.1.1) is considered low in plastic if it consists of components, materials, content, or materials that contain minor plastics according to Section 3.4.

Use of Fresh Fiber Paper:

A product (according to Section 3.1.1) is considered low in plastic if it consists of components, materials, content, or materials that contain minor plastics according to Section 3.4 up to a maximum of 2 %.<sup>21</sup> To promote innovation, seal graphics and certificates display contained plastic contents of maximum 1.25 % or 0.75 % upon successful certification. Transparent references in B2B and B2C communication support economic actors to recognize innovation leaders and to independently verify the compliance of their products with legal requirements. This transparency serves as a guide for consumers in making sustainable purchases and acts as a general educational resource.

For virgin fiber-based products considered low in plastic, paints, inks and adhesives as polymeric materials are excluded from the calculation of the plastic content.<sup>22</sup>

Use of Fiber-Based Materials from the Waste Paper Stream:

Waste paper (according to Section 3.6) is used as a raw material for recycling in the production of paper, cardboard, and paperboard products in the paper industry. When using recycled materials, the tolerance limits for unwanted materials, including those containing minor plastics according to Section 3.4, in this certification program for low in plastic products are based on DIN EN 643.<sup>23</sup>

Raw materials and semi-finished products intended to be processed into products according to

<sup>19</sup> Cf. Federal Environment Agency (Ed.), (2023) "Determination of the proportion of highly recyclable system participation obligation packaging on the German market"; Packaging Act (VerpackG) § 3 (5) in conjunction with § 16 (3) Sentence 4 Requirements for Recycling; Proposal for a Regulation of the European Parliament and of the Council on packaging and packaging waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904 and repealing Directive 94/62/EC, Article 47, paragraph 4

<sup>20</sup> Cf. Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment; Commission Guidelines on single-use plastic items in accordance with Directive (EU) 2019/904 of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment (2021/C 216/01)

<sup>21</sup> Cf. Decree of 24 September 2021 on the maximum permissible plastic content in single-use plastic cups, NOR: TREP2112058A, Art. 2 - I. - The maximum permissible plastic content in the items referred to in D. 541-330 7o b; LEGISLATIVE DECREE No. 196 of 8 November 2021 Implementing Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the environmental impact of certain plastic products. Article 3, Definition; Motion by Member Haverkort et al. regarding conditional provisions for single-use paper cups and containers, Second Chamber, parliamentary year 2023–2024, document no. 278, 32 852

<sup>22</sup> Cf. Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment; Commission Guidelines on single-use plastic items in accordance with Directive (EU) 2019/904 of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment (2021/C 216/01)

<sup>23</sup> Cf. DIN EN 643:2014-01

Section 3.1.1 are subject to the requirements defined in Section 4.2.

### **4.3 LESS PLASTICS Total Product**

A consumer good (according to Section 3.1) is considered low in plastic if its components, packaging, and product, taking into account Sections 3.7 and 3.8, each contain the relevant maximum limits of minor plastics defined in Sections 4.1 and 4.2.

## **5 Laboratory testing**

### **5.1 General information**

For the required tests, which serve as the basis for the evaluation and certification of consumer goods, products, packaging, and semi-finished products, the certification partner relies on testing laboratories recognized by them.

### **5.2 Types of testing**

#### **5.2.1 Initial test (Type testing)**

The initial test includes a type test (prototype test, design test), aimed at determining whether the product, consumer good, packaging, or semi-finished product meets the requirements according to Section 4 of this certification program.

#### **5.2.2 Monitoring test (Control test)**

The monitoring test is carried out every two years and aims to determine whether the certified consumer good, product, packaging, or semi-finished product in the production phase corresponds to the type-tested consumer goods, products, packaging, or semi-finished products. It is commissioned by the testing partner and requires a timely positive test report as evidence. The scope of the monitoring test corresponds to that of the initial test according to Section 5.2.1.

#### **5.2.3 Supplementary test**

A supplementary test takes place when additions, expansions, or changes (see Section 6.10) are made to certified consumer goods, products, packaging, or semi-finished products that affect compliance with the requirements of this certification program. A supplementary test may also be necessary if there are indications or suspicions of intentional, but uncommunicated changes to consumer goods, products, or semi-finished products.

The type and scope of the supplementary test are individually determined by the certification partner in consultation with the testing laboratory.

#### **5.2.4 Special test**

Special tests are carried out:

- in the case of identified defects
- after a production break of more than 6 months
- upon justified request of the testing partner
- upon written request of third parties, if they have a special interest in maintaining proper market operations in competitive or qualitative terms

The type and extent of a special test are determined according to the purpose in each individual

case by the certificate issuer in coordination with the testing partner. If defects are identified during a special test or the special test is due to a production break, the certificate holder bears the costs of the procedure. If special tests are carried out at the request of third parties and no defects are identified, the requesting third party bears the full costs.

### **5.3 Sampling procedure**

To conduct the initial and monitoring tests, the manufacturer typically submits five test samples for each requested consumer good, product, each requested packaging, or each requested semi-finished product to the commissioned testing laboratory and to flustix upon request of the certification partner. The applicant bears the costs for these samples. Simultaneously, the applicant submits all documents, such as information on the composition and ingredients, along with the corresponding test sample to flustix and/or directly to the commissioned testing laboratory upon request.

### **5.4 Test procedure**

#### **5.4.1 General information**

Upon receipt of the test samples and submitted documents, the testing laboratory assesses whether the test is feasible and whether the test samples can pass the test. If this is the case, following the submission of the application and presentation of documents according to Section 6.1, at least one test per type (see Section 6.2) is conducted by the testing laboratory. The testing laboratory also determines the scope of the test.

#### **5.4.2 Testing of low-plastic semi-finished products, total products, products and packaging**

Depending on the test sample and its relation to the main material unit and the bases defined in Section 3, both qualitative and quantitative analyses are carried out. In some cases, it may be necessary to perform special sample preparation, depending on the item to be certified. If plastic is detected in a test, it is fundamentally necessary to clarify whether this plastic originates from residues and contaminations according to Section 3.7 or is technically unavoidable according to Section 3.8. If the plastic content identified in the test reaches the applicable limit value of the consumer good, product, packaging, or semi-finished product being tested, this is clarified through the manufacturer's declaration of intent using the "Positive Analysis Result" form and, if necessary, through document review.

For the conduct of tests on fiber-based and/or solid materials, service providers must have in their portfolio or through partner laboratories some of the following listed equipment and methods, which are ideally already accredited in the QMH area.

The determination of polymeric components can be carried out using a variety of analysis methods already established in international practice. The detection of plastics is performed spectroscopically and/or thermoanalytically using

- a) Infrared Spectroscopy (FTIR): Analysis of infrared absorptions to identify specific functional groups in solid materials,

combined in a two-stage approach with at least one of the following in-depth methods:

- Thermogravimetric Analysis (TGA):  
Measurement of weight loss at increasing temperature to quantify the content of organic and inorganic components.

and/or

- Differential Scanning Calorimetry (DSC):  
Using a dynamic heat flow differential calorimeter, after prior separation of the inner coating (separation using CUEN solution).

and/or

- Mass Spectrometry:  
Identification and quantification of molecules in solid materials based on their mass and charge.

and/or

- Raman Spectroscopy:  
Investigation of the Raman scattering of laser light to identify molecular structures and chemical compositions.

- b) Thermodesorption Gas Chromatography/Mass Spectrometry (TED-GC/MS):  
Thermal desorption of volatile organic compounds from plastic samples, followed by separation and identification using gas chromatography and mass spectrometry.

## 5.5 Test reporting

The designated testing laboratory submits the test report for conformity assessment to the certification partner. This must be presented to the certification authority in its original form, either digitally or in analog.

A test report should generally not be older than six months for submission. Under certain circumstances, older test reports may also be accepted, provided that the testing laboratory confirms in writing the accuracy of the information contained therein.

Such a test report must meet the requirements of DIN EN ISO/IEC 17025 and include the following information:

- Name and address of the applicant
- Name and address of the submitting applicant if they are not the manufacturer
- The basis of the test, including the date of the certification program issue
- The type of test (such as type or supplementary test)
- The date the test was conducted
- The results and assessment of the test conducted
- The name and signature of the person responsible for the test
- A detailed description of the product with an image and dimensions for clear identification of the tested sample

## 6 Certification

The certification according to this program refers to the conformity assessment of consumer goods, products, packaging, or semi-finished products, conducted by a certification partner based on reports from recognized testing laboratories.

The goods, products, packaging, or semi-finished products under certification are tested for compliance with the criteria set out in Section 4, and the results are then reviewed.

The right to use the certification mark "flustix LESS PLASTICS" is granted with the issuance of a corresponding certificate by the responsible certification authority.

## 6.1 Application for certification

Manufacturers according to § 4 ProdHaftG or traders who bring the goods, products, packaging, or semi-finished products to the market in agreement with the certificate holder qualify as applicants. The applicant must submit the following documents to the certification partner:

- Certification application in its original form with a legally valid signature
- A current test report according to Section 5.5 on an initial test according to Section 5.2.1, unless this is commissioned by the certification authority
- If required and upon request, submission of the "Positive Analysis Result" form
- On demand, the presentation for the product/packaging layout
- A description of the goods, product, packaging, or semi-finished product to be certified, including application and international trade identification number (e.g., EAN)
- All information on composition or ingredients
- A list of all raw and additional materials (data sheets) with indication of the percentage mass proportions

## 6.2 Classification of types and subtypes

### 6.2.1 Types

Low-plastic consumer goods, products, packaging, or semi-finished products that differ in essential characteristics relevant to certification are categorized as separate models or types. Such characteristics may include the use of different materials or features that significantly affect safety, functionality, or handling, and therefore are marketed under their own type/model.

Certification-relevant characteristics include, for example:

- Ingredients
- Product characteristics that go beyond differences in dimensions

A separate certificate is issued for each type.

### 6.2.2 Subtypes

Subtypes are defined as variants of a model/type that differ in characteristics not relevant to the testing and certification process, such as the size of a product.

Such non-certification-relevant characteristics include, for example:

- Different dimensions, sizes
- Used printing inks, printing or packaging layouts by the same distributor, under the same brand and product

Multiple subtypes can be summarized on the certificate of the type/model.

The classification into types and subtypes is carried out based on the specifications in Section 6.2 and the composition of the consumer goods, products, packaging, or semi-finished products to be certified, by the certification partner after consultation with the testing laboratory and assessment of the testing approach.

## 6.3 Sub-certificates

Sub-certificates are necessary when certified products are to be distributed in the name of companies other than the main certificate holder.

The issuance of sub-certificates is possible for all products defined within this certification program. They allow the marketing of certified consumer goods, products, packaging, or semi-finished



products in the name of the sub-certificate holder. The validity of the sub-certificate is contingent upon the main certificate. The products may not be modified by the holder of the sub-certificate (except for printing).<sup>24</sup>

Necessary documents and information required for application:

- a) Application form with stamp and signature
- b) Consent form for sub-certificates with signatures of both the main and sub-certificate holders. Declaration by the sub-certificate holder that the products of the main certificate holder will be distributed unaltered, except for printing

The issuance of a sub-certificate can occur

- with its own register number
- with the register number of the main certificate holder

#### **6.4 Conformity assesment**

Based on the submitted documents, the certification partner conducts the conformity assessment. This is particularly done based on the test report to assess whether the consumer good, product, packaging, or semi-finished product meets the requirements of the certification program.


Any deviations are communicated to the applicant in writing by the certification service provider.

#### **6.5 Issue of the certificate and right to use the mark**

After a positive assessment and confirmation of conformity of the submitted test results, the certification partner issues the applicant with the certificate and the right to use the corresponding certification mark "flustix LESS PLASTICS" along with an associated registration number.

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<sup>24</sup> Cf. Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment; Commission Guidelines on single-use plastic items in accordance with Directive (EU) 2019/904 of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment (2021/C 216/01); PROPAKMA (2023) "Private Expert Opinion on the Definition of the Plastic Content in the Printing of Fiber-Based Service Packaging (using the example of a coffee cup) for the Assessment of the Plastic Content."

Certification object	Structure register number	Certification mark
LESS PLASTICS Packaging	FPVK000	
LESS PLASTICS Product	FPPK000	
LESS PLASTICS Total Product	FPGK000	

Consumer goods, products, packaging, or semi-finished products that have been granted the right to use the "flustix LESS PLASTICS" certification mark must be labeled with the respective "flustix LESS PLASTICS" certification mark, the associated registration number, and the mandatory explanatory text.

**Advisory Texts:**

flustix LESS PLASTICS Total Product:



flustix LESS PLASTICS Packaging:



flustix LESS PLASTICS Product

Standard:



flustix LESS PLASTICS Product

Virgin fiber products:



flustix LESS PLASTICS Product

Recycled fiber products:



The mark and registration number may only be used for the type for which the certificate was issued and which corresponds to the type-tested consumer good, product, packaging, or semi-finished product.

A registration number is assigned per type. The same registration number is issued for variations (subtypes) of a type according to Section 6.2.

Additionally, the General Terms and Conditions as well as the Testing, Registration, and Certification Regulations of the certification partner apply.

## 6.6 Publications

Information about all certificate holders can be accessed at any time on the website [www.flustix.com](http://www.flustix.com). Manufacturers, users, and consumers utilize this resource to research certified products.

## 6.7 Validity of the certificate

The validity of the certificate is five years, and the expiry date is noted on the certificate. With the expiration of the certificate, the right to use the seal also expires.

## 6.8 Renewal of the certificate

To continue the certification beyond the date stated in the certificate, a current positive test report must be submitted to the certification partner in a timely manner. Based on this report, a renewed conformity assessment is conducted.

Compliance with the requirements according to the testing and certification bases in Section 2 is demonstrated with the scope of an initial test according to Section 5.2.1, which is reviewed by the certification partner.

## 6.9 Expiry of the certificate

The certificate and the right to use the "flustix LESS PLASTICS" seal along with the registration number automatically expire after the validity period if no timely conformity assessment according to Section 5 is carried out, without the need for explicit notification from the certification partner.

Furthermore, the certificate may be canceled if:

- The monitoring tests according to Section 8 are not carried out on time or in full
- The "flustix LESS PLASTICS" seal is misused by the certificate holder
- The requirements of the certification program or associated documents are not met
- The due certification fees are not paid on time
- The conditions for the issuance of the certificate are no longer met.

## **6.10 Modification/Amendment**

### **6.10.1 Modification/Amendment of a consumer good, product, packaging or semi-finished product**

Certificate holders must immediately report any changes affecting the subject of certification to the certification partner. In consultation with the testing laboratory, the partner decides on the necessity and scope of a review according to Section 5.2.3 and whether it constitutes a significant modification. The testing laboratory reports the results of this review to the certification partner.

If the certification partner recognizes a significant modification, the certificate and registration number lose their validity. A new application for initial certification and for the use of the "flustix LESS PLASTICS" mark can be made for the modified product. Certificate holders are also obligated to communicate any formal changes (e.g., changes in the certificate holder or their address). For further variants (subtypes) of the same type, an extension of the existing certificate can be requested. The certification partner decides whether an additional review is necessary. If the conditions are met, these variants are included in the certificate of the already certified product and thus become part of it.

### **6.10.2 Evaluation of test specifications**

In case of changes to the certification basis, an adaptation request must be submitted within 6 months of notification by the certification partner. As a rule, conformity with the new testing basis must be proven by a positive test report (see Section 5.2.3) within 12 months.

### **6.11 Rectification of defects in the consumer good, product, packaging, or semi-finished product**

Upon identifying defects in certified consumer goods, products, packaging, or semi-finished products in the market, the certification partner will issue a written request to the holder to rectify the defects.

Until the defects are rectified, the manufacturer must not label the affected goods, products, packaging, or semi-finished products with the certification marks.

The defects must also be promptly corrected on items that are already installed or in storage. Within 3 months, the manufacturer must demonstrate through a test report on a special examination according to Section 5.2.4 to the certification partner that the defects have been corrected and the items again meet the requirements.

If the manufacturer does not meet these deadlines, the certificate and, consequently, the right to use the "flustix LESS PLASTICS" mark will be revoked from them and their distribution. In case of persistent defects, the certification partner initially suspends the certificate and sets a final deadline for defect rectification.

If the request is not complied with, or not in a timely manner, or if the rectification of defects is not demonstrated again, the certificate will expire.

## **7 Self-monitoring by the manufacturer**

The manufacturer must ensure, through appropriate quality assurance measures, that the certified properties of the goods, products, packaging, or semi-finished products are maintained.

This is achieved through in-house production control (WPK) tailored to the product, packaging, or semi-finished product or the production process, and additionally through measures within a quality management system (QMS) according to the DIN EN ISO 9000 ff series of standards.

The certifier recommends the implementation and submission of a current certification of a quality management system according to the DIN EN ISO 9000 ff series of standards.

## **8 External monitoring by the certification partner**

A central aspect of the certification is the continuous monitoring of the certified consumer good, product, packaging, or semi-finished product throughout the entire duration of the certificate's validity. This monitoring occurs at two-year intervals. During these regular monitoring tests, the certification partner checks and assesses whether the product continues to meet the requirements defined in the certification program, as described for the initial test in Section 5.2.1.