



flustix Certification Scheme for the award of the flustix PFAS-FREE seals



Version 1.0 August 2026

Foreword

This certification scheme enables total products, products, packaging, product content as well as materials and semi-finished products intended for further processing or placing on the market, and which do not contain any intentionally added per- and polyfluoroalkyl substances (PFAS), to be assessed by an independent third-party assessment according to uniform criteria and to be awarded the appropriate "flustix PFAS-FREE" certification mark, provided they meet the requirements of this certification scheme.

To clearly identify certified goods for business customers (B2B), end consumers (B2C) and other relevant market participants, certification is granted, depending on the certified subject, under one of the following certification categories:

- PFAS-FREE Total Product
- PFAS-FREE Product
- PFAS-FREE Packaging
- PFAS-FREE Product Content

In collaboration with approved and recognised testing partners, flustix GmbH, together with its accredited partners in industry and consumers, provides a reliable guidance system for PFAS-free products and materials. The scheme supports the protection of human health, the environment and natural resources and enables companies to transparently demonstrate their responsible handling of chemical substances and their efforts to avoid PFAS.

The 'flustix PFAS-FREE' certification mark communicates to consumers (B2C) and business stakeholders (B2B) that an impartial and expert body has analysed the testing standards and independently assessed compliance with the requirements of this certification scheme prior to awarding the certification mark.

Any suggestion that this equates to statutory compliance must be avoided. The certification mark denotes an additional, independent assessment that goes beyond the minimum legal and regulatory requirements.

In conjunction with the General Terms and Conditions of the issuing accredited certification partner, this certification scheme provides manufacturers and distributors with the basis for labelling total products, products, packaging or product content with the applicable "flustix PFAS-FREE" certification mark. This confirms that all requirements of this certification scheme have been independently assessed and fulfilled by recognised bodies.

Total products, products, packaging, product content, materials and semi-finished products are awarded the applicable "flustix PFAS-FREE" certification mark, depending on the certified subject, provided they fulfil the requirements set out in Section 4 and have successfully completed the testing and certification process defined in this certification scheme.

A current list of certificate holders is available at www.flustix.com/certified .

Working document for internal coordination with testing laboratories, certification partners and scheme development.

Document information

Document title	flustix PFAS-FREE – Certification scheme
Current document version	August 2026
Status	Draft version for validation by laboratories and partners
Application focus	Cosmetics, personal care products, detergents, other liquid, gel-like, paste-like or powdered formulations (product contents), packaging, solid products, textiles and textile products, semi-finished products, as well as fire extinguishing agents and fire-fighting foams.
Claim logic	PFAS-free according to scheme logic: no intentionally added PFAS, no abnormal target findings and no abnormal total fluorine parameter
Note	The product group-specific limit values defined in Section 5.4.4 may be updated following the completion of further interlaboratory tests and laboratory calibrations.

Contributors

Name, Function/Position	Organisation
Malte Biss, CEO & Founder	flustix – RETHINK PLASTICS
Kathrin Schaumann, Sales & Certification Development Manager (Program & Partners)	flustix – RETHINK PLASTICS
Tanja Tiede, Global Accelerator for Future Sustainability & Certification Programs	Control Union Certifications Germany GmbH
Jaewoo Kim (Maxwell Kim) Center Director, International Standardization Project Leader, Quality and Technical Manager	KOTITI Testing & Research Institute
Jaewon Na Senior Researcher, Test Method Development and International Standardization Expert	KOTITI Testing & Research Institute

Nohyun Lim, CEO, Representative of IGSC	IGSC (Institute of Global Sustainability Certification South Korean)
Kiwoong Jung, Office Director, Certification & Audit Office / Certification audit activities	IGSC (Institute of Global Sustainability Certification South Korean)
Currenta GmbH & Co. OHG CURRENTA Analytik	A technical contribution focusing exclusively on analytical methodology and laboratory testing strategy. No involvement in the content or organisation of the certification programme.
Junyoung (Felix) Sung Sustainable Resource Team Leader	Control Union Korea
Jaewook (Louis) Jang, Marketing Manager	Control Union Korea
Jinyoung (Jinny) Bae Sustainable Resource Team Client Manager	Control Union Korea

Change history

Version	Date	Amended by	Summary
1.0	August 2026	flustix Scheme Development	Initial version of the PFAS-FREE certification scheme based on the existing flustix scheme structure and an expanded PFAS screening approach.

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Publisher: flustix GmbH

Managing Director: Malte Biss

Text: Malte Biss

flustix GmbH Kronprinzendamm 20

10711 Berlin

Phone: +49 (0) 30 3982 0696 2

E-mail: m.biss@flustix.com

www.flustix.com

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1 Scope

This certification scheme applies to total products, products, product content, packaging and semi-finished products that are intended to be certified under one of the flustix PFAS-FREE certification categories. It defines the requirements applicable to the respective certification subject, the testing logic, the surveillance requirements and the certification procedure.

The aim of the scheme is to award a marketable yet objectively robust label for PFAS-free applications. Any communication implying compliance with legal obligations must be avoided. The label indicates an additional, independent test that goes beyond the minimum legal and regulatory requirements.

The scheme is particularly applicable to the following areas:

- Personal care and cosmetics, in particular liquid, creamy, gel-like or solid formulations
- Laundry, cleaning and washing products, as well as comparable detergents
- Plastic, glass, metal, paper and cardboard packaging
- Solid consumer goods, components and semi-finished products without intentionally added fluorinated functional chemicals
- Textiles and textile products, in particular clothing, home textiles, technical textiles, as well as coated or treated textile materials
- Raw and intermediate materials, provided they can be clearly assigned to a subsequent certification subject
 - Raw and intermediate materials may also be certified where they are clearly defined as an independent certification subject or can be demonstrably assigned as a component of a subsequent end product or packaging
- Fire extinguishing agents, fire-fighting foams and foam concentrates, where these are assessed as product content, formulations or technical applications without intentionally added PFAS. This also requires that PFAS are not intentionally used to provide functional performance characteristics

For food contact packaging, the requirements of Regulation (EU) 2025/40 (following: PPWR) are taken into account.

The specific threshold values (see Section 5.4.4) as well as the testing and assessment logic (see Section 5.4.5) defined in this certification scheme meet at least the regulatory requirements of the PPWR and in many aspects go beyond them.

This applies in particular to the combination of document-based assessment, targeted analytical testing and supplementary fluorine sum parameter assessment.

The flustix PFAS-FREE certification scheme therefore constitutes an independent assessment and certification framework exceeding the minimum legal requirements.

This certification scheme makes no statement regarding general product quality, functionality or product safety outside the context of PFAS. The legal obligations of the respective distributor remain unaffected.

The independent analytical laboratory assessment constitutes the central element of the conformity assessment within the flustix PFAS-FREE certification scheme. The document review serves to support the technical preparation of the analytical assessment, the risk-based selection of appropriate analytical parameters and the plausibility assessment of the analytical results. It does not replace the analytical laboratory assessment.

2 Testing and certification principles

The basis for testing and certification is formed by the documents listed below. For dated references, the version cited applies. For undated references, the latest version, including subsequent amendments, applies.

- Regulation (EC) No 1907/2006 (REACH)
- Commission Regulation (EU) 2025/1988 amending Annex XVII to Regulation (EC) No 1907/2006 (REACH) as regards per- and polyfluoroalkyl substances (PFAS) in fire-fighting foams
- Regulation (EC) No 1223/2009 on cosmetic products
- Regulation (EC) No 648/2004 on detergents
- Regulation (EC) No 1935/2004 on materials and articles intended to come into contact with food
- Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food
- OECD (2021): Reconciling Terminology of the Universe of Per- and Polyfluoroalkyl Substances
- ECHA: PFAS Restriction Proposal / Registry of restriction intentions
- ISO 21675:2019 Water quality – Determination of selected per- and polyfluoroalkyl substances (PFAS) in water – Method using solid-phase extraction and LC-MS/MS
- ISO 18127:2026 Water quality – Determination of adsorbable organically bound fluorine, chlorine, bromine and iodine (AOF, AOCl, AOBr, AOI) – Method using combustion followed by ion chromatographic determination
- EPA Method 533 – Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and LC-MS/MS
- EPA Method 537.1 – Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and LC-MS/MS
- EPA Method 1633A – Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS
- ISO/IEC 17025 for testing laboratories
- ISO/IEC 17065 for certification bodies
- ISO 19011 for audit procedures
- This certification scheme

The General Terms and Conditions, the Testing and Certification Regulations, and the Fee Schedule of the certification partner

For the definition of the PFAS scope, this scheme follows the broad, structure-based OECD approach whilst also aligning with the European PFAS restriction framework. This ensures that both traditional PFAS and newer fluorinated alternatives are not excluded from the scope of consideration from the outset.

For practical certification purposes, the chemical breadth of the definition is supplemented by an operational testing approach. This consists of document review, targeted analysis and a supplementary total

fluorine parameter. Where the aforementioned standards and methods do not fully cover certain matrices, equivalent, validated and laboratory-documented procedures may be used.

The assessment and evaluation of PFAS is carried out taking into account the latest guidance of the European Commission on the implementation of the PPWR. The testing and assessment approaches applied within this certification scheme meet at least these requirements and extend them through additional assessment steps as well as stricter analytical and documentation-related criteria.

3 Definitions

3.1 PFAS

For the purposes of this certification scheme, PFAS are defined as fluorinated organic substances containing at least one fully fluorinated methyl or methylene carbon atom, i.e. in particular substances with at least one perfluorinated –CF₃– or –CF₂– unit. The scheme covers polymeric and non-polymeric PFAS, provided they fall under the above structural definition.

3.2 Product

A product is an article or formulation made available on the market or placed on the market by the manufacturer or their authorised representative. In this scheme, the product is considered without packaging, unless the category ‘packaging’ or ‘total product’ is expressly applied for.

3.3 Packaging

Packaging is an article intended for the containment, protection, handling, delivery or presentation of a product. Primary, secondary and service packaging may be subject to certification, provided they are clearly described in terms of type and can be analytically assessed.

3.4 Product content

Product content refers to the internal material composition of a product, in particular formulations such as cosmetics, detergents, fill materials or other soluble, dispersed or homogeneous systems.

3.5 Semi-finished product

A semi-finished product is a product that has undergone partial processing and is intended for further processing before it becomes ready for use.

3.6 PFAS-free

For the purposes of this scheme, a certified subject is considered PFAS-free if all of the following conditions are met:

- No PFAS are intentionally used
- The documentation review reveals no evidence of raw materials, additives, auxiliary materials, process chemicals, coatings or barrier systems containing PFAS
- The targeted PFAS analysis defined in the scheme shows no findings above the applicable analytical acceptance criteria.
- The supplementary total fluorine parameter is below the limit value applicable to the relevant product group

Where a certification subject contains fluorinated compounds that are not classified as PFAS, it shall be demonstrated within the documentation and plausibility assessment that such fluorinated compounds are not attributable to an intentional use of PFAS. In such cases, the complementary fluorine sum parameter shall not significantly exceed the value theoretically resulting from the concentration and chemical composition of the declared fluorinated compound. Where appropriate, additional analytical methods may be applied to differentiate between PFAS and other fluorinated compounds.

The statement “PFAS-free” within the meaning of this scheme is therefore an independent, audited and verified scheme attribute. It should not be understood as a scientific statement that every theoretically conceivable PFAS structure has been absolutely ruled out worldwide.

The list of target substances and the analytical requirements are regularly updated as part of the ongoing development of this certification scheme, taking into account new scientific knowledge, regulatory developments and advances in analytical methodologies.

3.7 No intentionally added PFAS

“No intentionally added PFAS” means that PFAS are not intentionally used as raw materials, additives, processing aids, coatings, barrier systems or functional components. The mere absence of a declaration is not sufficient. The statement shall be substantiated within the document review by appropriate documentation, insofar as such documentation is available for the respective certification subject and required for the conformity assessment.

Technically unavoidable traces of fluorinated compounds that are not attributable to the deliberate use of PFAS may occur. Such background levels are permissible provided that the analytical limit values specified within this certification scheme are complied with.

3.8 Fluoropolymers

Fluoropolymers such as PTFE, PVDF, FEP, PFA or comparable fully or partially fluorinated polymer materials are considered PFAS within the scope of this certification scheme and are therefore not permitted, provided they are specifically used as a component of the product, packaging or coatings.

3.9 Target substance

Target substances are those PFAS that are individually identified within the framework of the scheme through targeted analysis. The current list of target substances is set out in Annex A. Annex A deliberately includes both classic PFAS and selected newer or ultra-short-chain substances, and thus, in the scheme’s logic, goes beyond a mere reflection of narrowly defined regulatory minimum lists.

3.10 Organically bound fluorine

Organically bound fluorine represents one possible analytical approach for determining a supplementary fluorine sum parameter. Depending on the product matrix and the analytical capabilities of the recognised testing laboratory, the fluorine sum parameter may be determined, for example, as Total Fluorine (e.g. by Combustion Ion Chromatography (CIC)), Extractable Organic Fluorine (EOF), Adsorbable Organic Fluorine (AOF), or by another functionally equivalent validated analytical method. It serves as an indicator of fluorinated organic substances that are not necessarily included within the targeted analytical panel.

3.11 Analytical limit of detection

The analytical limit of detection (LOD) describes the method-specific concentration at which a target substance can be qualitatively detected with sufficient certainty. The analytical limit of quantification (LOQ) describes the method-specific concentration at which a target substance can be quantitatively

determined with sufficient certainty. For certification purposes, matrix-specific detection and quantification limits documented by the testing laboratory shall apply.

3.12 Background fluorine / unavoidable traces

Background fluorine or unavoidable traces are minor, non-functional components of fluorinated compounds that may occur as a result of environmental influences, raw material impurities, measurement background or unavoidable supply chain contamination. Such findings must not indicate an intended use of PFAS and must fall within the limit values defined in Section 5.4.4.

3.13 Product groups

For the purposes of assessment, the following product groups are distinguished in particular:

- Cosmetics and personal care
- Detergents, washing, cleaning and household cleaning products
- Plastic packaging and flexible packaging
- Paper, cardboard and fibre-based packaging
- Glass and metal packaging
- Solid products, components and semi-finished products
- Textiles and textile products
- Fire extinguishing agents, fire-fighting foams and foam concentrates

4 Requirements for the flustix PFAS-FREE Certification Categories

4.1 General requirements

A certification subject meets the requirements of this certification scheme if it complies with the definition of 'PFAS-free' as set out in Section 3.6 and the testing and certification requirements of this scheme are met.

The certification scheme distinguishes the following certification categories:

- PFAS-FREE Total Product
- PFAS-FREE Product
- PFAS-FREE Packaging
- PFAS-FREE Product Content

The selected certification category determines the scope of the conformity assessment and the subject of certification and shall be clearly identified in both the certificate and the public register.

Unless otherwise specified, the following requirements apply to all certification categories. Additional requirements for individual certification categories are set out in the following sections.

Certification requires, cumulatively, that:

- the applicant provides the information required for the conformity assessment regarding the substance and material composition of the certification subject, to the extent that such information is available or can reasonably be obtained
- no PFAS are intentionally used and this shall be declared by the applicant as part of the certification application and verified through the review of available documentation and ultimately by the analytical laboratory assessment

- there is no evidence of fluorinated functional chemistry, fluorinated barriers or fluorinated surface treatments
- the analytical criteria of this scheme are met
- clear product and type classification is possible

4.2 Specific requirements for the PFAS-FREE Product Content certification category

For product content such as cosmetics and detergents, at least the following documents must be submitted:

- a total list of formulations or ingredients in descending order of quantity
- CAS numbers for substances relevant to the declaration, where available
- available safety data sheets, technical data sheets or comparable product specifications for PFAS-relevant raw materials or functionally critical substances, where available or reasonably obtainable
- available manufacturer or supplier declarations regarding PFAS-relevant raw materials or functionally critical ingredients, where available
- Information on processing aids, defoamers, release agents, fluorinated surfactants, fluorinated polymers and water-, grease- or dirt-repellent additives

For fire extinguishing agents, fire-fighting foams and foam concentrates, additional information shall be provided regarding fluorinated surfactants, film-forming agents, foam stabilisers, extinguishing additives, processing aids, as well as previous or current PFAS-containing formulation components.

Products or formulations that specifically generate water-, oil-, dirt- or grease-repellent properties through fluorinated chemistry are not certifiable.

Products or formulations in which PFAS are intentionally used to provide film formation, foam stability, oil or fuel repellency, wetting performance or any other extinguishing-related functional property are not certifiable.

4.3 Specific requirements for the PFAS-FREE Packaging, PFAS-FREE Product and PFAS-FREE Total Product certification categories

For packaging, products and semi-finished goods, the following aspects in particular must be assessed:

- raw materials, masterbatches, coatings, varnishes, printing aids and additives used
- Coatings or barrier systems on paper, cardboard, films or moulded parts
- fluorinated surface treatments or impregnations
- available technical data sheets, product specifications or comparable manufacturer documentation, where relevant for the assessment
- where applicable, migration or extraction data for food contact materials

Paper or board products with grease-repellent fluorinated chemistry, as well as food-service applications with specifically fluorinated barriers, are not certifiable.

4.4 Non-certifiable products and applications

- Products or materials containing intentionally added PFAS

- Items with fluorinated non-stick, grease barrier, impregnation or easy-clean systems
- Products for which no reliable conformity assessment is possible despite available documentation and analytical laboratory assessment
- Products where verifiability is not guaranteed from an analytical perspective
- Products where the results of the total fluorine parameter clearly indicate the use of PFAS

4.5 Communication rules

The "flustix PFAS-FREE" certification marks may only be used in conjunction with a valid certificate, the corresponding registration number and exclusively for the specific certified subject.

Depending on the scope of certification, one of the following certification marks is awarded:

- PFAS-FREE Total Product
- PFAS-FREE Product
- PFAS-FREE Packaging
- PFAS-FREE Product Content

The respective certification category shall be clearly identified in the certificate, the public register and the product description.

Any implication that the certification constitutes compliance with statutory requirements shall be avoided. The certification mark represents an additional independent assessment exceeding the applicable legal and regulatory baseline.

Following successful conformity assessment and the issuance of a valid certificate, the certificate holder is granted the right to use the certification mark corresponding to the respective certification category, including the associated registration number. The allocation is made in accordance with the following system

Certification Category	Registration Number Format	Certification Mark
PFAS-FREE Total Product	PFAS-GP-000001	
PFAS-FREE Product	PFAS-PR-000001	

Certification Category	Registration Number Format	Certification Mark
PFAS-FREE Packaging	PFAS-VP-000001	
PFAS-FREE Product Content	PFAS-PI-000001	

The respective certification mark, including the associated registration number, may only be used for the certified subject identified in the certificate and only for the period during which the certificate remains valid. Use for any other products, packaging, product content or total products is not permitted.

5 Testing

5.1 General

For the required tests, the certification partner draws on testing laboratories recognised by them. The independent analytical laboratory assessment constitutes the central element of the conformity assessment. The document review serves to prepare, support and substantiate the analytical assessment.

The scheme is deliberately designed to go beyond mere REACH documentation whilst remaining feasible for laboratories to implement. The aim is a robust certification framework with traceable limit values that does not place an excessive analytical burden on the market.

5.2 Types of testing

5.2.1 Initial assessment (type assessment)

The initial test serves to determine whether the type applied for meets the requirements of this certification scheme.

5.2.2 Surveillance test (follow-up test)

The surveillance test is usually carried out every two years or, on a risk-based basis, at shorter intervals where justified. The risk assessment may take into account, in particular, the product group, changes within the supply chain, findings from previous audits, changes to material composition or formulation, as well as relevant regulatory developments. It serves to determine whether the certified product continues to conform to the type-tested condition.

5.2.3 Supplementary audit

A supplementary audit takes place if changes are made to formulations, raw materials, material components, suppliers, coatings, barrier systems or production processes that may influence the PFAS assessment.

5.2.4 Special audit

Special inspections are carried out in the event of identified defects, following a prolonged production stoppage, upon a justified request from the certification partner, or upon a written request from third parties with a particular legitimate interest in maintaining proper market conduct.

5.2.5 Prohibition of the intentional use of PFAS

The intentional use of per- and polyfluoroalkyl substances (PFAS) in the product or its components is not permitted. This applies in particular to functional coatings, barriers, additives and any other applications where PFAS are deliberately used to achieve specific material properties.

This requirement applies independently of analytically detectable threshold values and ensures that PFAS are not intentionally used under any circumstances. This requirement complements the analytical laboratory assessment and serves, in particular, to identify potential PFAS-related risk areas and to support the plausibility assessment of the analytical findings. The analytical laboratory assessment remains the decisive element of the conformity assessment.

5.3 Sampling

To carry out the initial and surveillance tests, the applicant shall provide the necessary test samples and the associated documentation for each type applied for. The exact number and form of the test samples depend on the product group, the matrix and the analytical method.

- For formulations, representative original containers or laboratory batches must be provided
- For packaging and solid products, representative finished samples, material samples or semi-finished products must be provided
- In the case of multi-layer or coated articles, the testing laboratory may request additional individual components
- The costs of sampling and the test specimens shall be borne by the applicant

5.4 Conduct of the test

The analytical assessment shall be performed using internationally recognised methods for PFAS determination, including, for example, (HP)LC-MS/MS-based methods for target substances as well as sum parameter methods for extractable organic fluorine (EOF). The applied methods shall be validated by the testing laboratory and shall reflect the current state of analytical science

5.4.1 Document review

The document review shall include at least:

- Review of the product description and application
- Review of the total disclosure of materials and ingredients
- Review of safety data sheets and specifications for critical substances
- Review of supplementary manufacturer, supplier or specification documents, where these are available and necessary for the assessment
- Check for indications of fluorinated barriers, fluorinated polymers, fluorinated surfactants, side-chain fluoropolymers, PFPE, PTFE, fluorotelomers or other fluorinated functional chemistry

The document review serves to prepare and support the analytical laboratory assessment. It facilitates the identification of potential PFAS-related risk areas, the selection of appropriate analytical methods and the plausibility assessment of the analytical findings. It supplements, but does not replace, the independent analytical laboratory assessment.

5.4.2 Targeted analysis

Targeted analysis is used to determine selected PFAS target substances. Matrix-suitable, validated methods must be used for certification. Depending on the product group, suitable methods may include, in particular, (HP)LC-MS/MS, GC-MS/MS or comparably high-performance GC-MS-based methods, IC-based methods, or other equivalent suitable techniques. The decisive criterion is that the matrix-appropriate and validated method used reliably achieves the limits of quantification required under this Certification Scheme.

The analytical target panel shall include at least the target substances listed in Annex A. In addition to classic PFAS, the panel deliberately includes additional substances that are considered relevant in modern screening approaches and go beyond the mere consideration of legacy substances. These include, in particular, ADONA and ultra-short-chain PFAS such as TFA and PFPrA.

The following applies in principle to the individual target substances: a product meets the analytical requirement if the target substances are below the applicable laboratory-specific limit of quantification (LOQ), and this limit is generally in the range of 10 to 25 ppb per substance or stricter. For aqueous or extractable matrices, testing laboratories may refer in particular to ISO 21675:2019 and – depending on the application – to EPA Method 533 or EPA Method 537.1. For solid, complex or extracted product matrices, EPA Method 1633A may serve as a reference framework. The applicable laboratory-specific limits

of quantification (LOQ), as well as any method-specific characteristics, must be clearly stated in the test report.

5.4.3 Supplementary total fluorine parameter

In addition to the targeted analytical panel, a supplementary fluorine sum parameter shall be determined where technically feasible for the respective matrix and where a recognised testing laboratory has an appropriate validated method available. Suitable analytical approaches include, in particular, Total Fluorine (e.g. by Combustion Ion Chromatography (CIC)), Extractable Organic Fluorine (EOF), Adsorbable Organic Fluorine (AOF), or functionally equivalent validated analytical methods.

The supplementary fluorine sum parameter is intended to detect fluorinated organic compounds that are not covered by the targeted analytical panel or cannot be addressed as individual target substances. The analytical framework therefore deliberately extends beyond the detection of individual classical PFAS and beyond current international regulatory requirements.

Where no suitable total fluorine parameter is available for a specific product matrix, the certification decision shall be based on the available analytical laboratory methods together with a documented scientific assessment by the certification partner.

5.4.4 Product group-specific limit values

The following product group-specific guidance and certification limit values apply to the preliminary first version of this certification scheme. They are based on a deliberately strict but still practicable approach and may be updated following further laboratory validation.

The product group-specific requirements defined in this certification scheme are regularly reviewed and updated where necessary in light of scientific progress, analytical developments and regulatory changes. Irrespective of this, the applicable statutory and regulatory minimum requirements shall always apply in the event of regulatory changes. Where this Certification Scheme establishes stricter requirements, those stricter requirements shall prevail.

Product group	Target PFAS	Total fluorine parameter	Assessment note
Cosmetics / Personal care	below LOQ, usually 10–20 ppb per substance	≤ 40 ppm	For leave-on, waterproof or high-performance products, increased documentation checks
Detergents / Cleaning agents	below LOQ, usually 10–20 ppb per substance	≤ 40 ppm	Focused testing of fluorinated surfactants and defoamers
Plastic packaging / flexible packaging	below LOQ, usually 10–20 ppb per substance	≤ 40 ppm	Additional testing of additives, coatings, masterbatches
Paper / cardboard / fibre-based packaging	below LOQ, usually 10–20 ppb per substance	≤ 40 ppm	Special assessment of fat barriers and

Product group	Target PFAS	Total fluorine parameter	Assessment note
			food service applications
Glass/metal packaging	below LOQ, typically 10–20 ppb per substance	≤ 20 ppm	Focus on coatings, liners, seals and interior coatings
Solid products / components / semi-finished products	below LOQ, typically 10–25 ppb per substance	≤ 40 ppm	Product- and matrix-specific assessment in consultation with the testing laboratory
Textiles / textile products	below LOQ, generally 10–25 ppb per substance	≤ 40 ppm	Focused assessment of impregnations, coatings and water-, oil- and dirt-repellent treatments
Fire extinguishing agents / fire-fighting foams / foam concentrates	below LOQ, typically 10–20 ppb per substance	≤ 40 ppm	Focused assessment of fluorinated surfactants, film-forming agents, foam stabilisers, extinguishing additives and potential PFAS precursor substances.

Additional requirements for packaging intended to come into contact with food

For materials and articles intended to come into contact with food, the requirements of Regulation (EU) 2025/40 (PPWR) shall apply in addition to the product-group-specific certification threshold values set out above.

The PFAS threshold values specified under the PPWR constitute regulatory minimum requirements. They do not replace any stricter scheme-specific requirements under this certification scheme.

For food-contact applications, the stricter requirement shall therefore apply in each case, based on:

- the product-group-specific certification threshold values defined in the table above
- the PPWR minimum requirements set out below
- and, where applicable, additional matrix-specific or application-specific requirements defined by the certification body

The regulatory minimum requirements under the PPWR for food-contact packaging are as follows:

- ≤ 25 ppb per individual PFAS (target analysis)

- ≤ 250 ppb total PFAS (including relevant precursor substances)
- ≤ 50 mg/kg total fluorine (Total Fluorine)

Where the product-group-specific threshold values of this certification scheme are stricter, those stricter values shall be decisive for the certification decision. Irrespective of these scheme-specific requirements, the applicable statutory requirements shall always constitute the minimum level of compliance. Where this certification scheme defines stricter requirements, those stricter requirements shall prevail.

For food-contact packaging, an additional assessment of the sum of PFAS, including relevant precursor compounds, may be performed where the respective matrix and the analytical method used allow for reliable determination. In particular, relevant fluorotelomer precursor compounds such as FTOHs, FTAs and FTMAAs, as well as other matrix- or application-specific relevant precursors, may be considered. The assessment shall be performed on a case-by-case basis, taking into account the current state of analytical science and regulatory developments.

The above values do not constitute general regulatory provisions, but scheme-specific certification thresholds and regulatory minimum requirements, which shall be jointly considered within the conformity assessment process.

5.4.5 Assessment logic

The assessment is carried out in stages:

- Stage 1: No evidence of intentional PFAS use in the document review
- Stage 2: No notable findings in the targeted PFAS panel
- Stage 3: Compliance with the limit value for the total fluorine parameter applicable to the product group
- Stage 4: Plausibility check of the overall assessment by the certification partner

Exceeding the limit values for individual target substances in the PFAS target panel generally results in non-compliance. In the event of elevated values for the supplementary total fluorine parameter, a supplementary analytical assessment may be carried out to determine whether the source of fluorine is attributable to PFAS or, to other fluorine-containing substances. If a PFAS source cannot be ruled out, the requirement is deemed not to have been met.

Supplementary evaluation logic for food contact packaging

For materials and articles intended to come into contact with food, a stepwise analytical approach may be applied in addition to the evaluation logic described above, in accordance with the current guidance of the European Commission:

- Screening of total fluorine (Total Fluorine)
- If values are ≤ 50 mg/kg, the sample may be considered compliant
- If values exceed 50 mg/kg, a differentiation between organic and inorganic fluorine shall be carried out (e.g. by pyrolysis-GC/MS)
- Where organic fluorine is detected, further analysis (e.g. target analysis and/or TOP assay) shall be conducted to verify compliance with the applicable threshold values

This supplementary evaluation logic serves the regulatory alignment with the PPWR and is complemented within this certification scheme by additional requirements regarding documentation, analytical testing and overall assessment.

The selection of supplementary analytical methods shall always be carried out on a risk-based basis and only where necessary to ensure a reliable conformity assessment.

Supplementary evaluation logic for fire extinguishing agents and fire-fighting foams

For fire extinguishing agents, fire-fighting foams and foam concentrates, the assessment shall additionally take into account the requirements of Commission Regulation (EU) 2025/1988 amending Annex XVII to Regulation (EC) No 1907/2006 (REACH).

The certification decision shall be based on the scheme-specific requirements set out in Section 5.4.4 together with the prohibition of intentionally added PFAS as defined in this certification scheme.

Where appropriate, the assessment may include documentation review, targeted PFAS analysis and the determination of a supplementary fluorine sum parameter, depending on the product matrix and the analytical capabilities of the recognised testing laboratory.

This supplementary evaluation logic ensures regulatory alignment while maintaining the stricter scheme-specific assessment criteria of the flustix PFAS-FREE certification scheme.

5.5 Test reporting

The contracted testing laboratory shall submit the test report to the certification partner for the purpose of conformity assessment. A test report must meet the requirements of ISO/IEC 17025 and contain at least the following information:

- Name and address of the applicant
- Unique identification of the tested product or sample, including product name, manufacturer or applicant, and batch or lot number, where available
- Photographic documentation of the tested products
- Date of testing and methods used
- Specification of the scheme version applied
- Specification of the target substances and the detection or quantification limits achieved
- Results of the target panel
- Result of the supplementary total fluorine parameter
- Clear quantitative reporting and analytical assessment of the results for the tested sample matrix
- The final conformity assessment in accordance with this certification scheme shall be performed by the certification body
- Name and signature of the responsible person

6 Certification

6.1 Application for certification

Manufacturers or distributors who, in agreement with the certificate holder, place products, packaging, product content or semi-finished products on the market are eligible to apply. The certification category for which certification is requested shall be specified in the certification application. Multiple certifications for different certification categories are permitted, provided that the respective requirements of this certification scheme are fulfilled. The applicant must submit at least the following documents to the certification partner:

- Certification application with a legally valid signature
- Description of the subject to be certified, including its application and trade identification
- Total disclosure of substances and materials in accordance with the category applied for
- available safety data sheets (SDS), technical data sheets (TDS) or comparable product specifications, where available to the applicant or reasonably obtainable
- available supplier or manufacturer declarations, where available and relevant for the conformity assessment
- Current test report in accordance with Section 5.5, unless the test is commissioned via the certification partner
- Upon request, layout or labelling designs for subsequent use of the mark

6.2 Categorisation of types and sub-types

Type classification shall always be carried out within the respective certification category applied for. Total Product, Product, Packaging and Product Content constitute independent certification categories and shall be assessed independently of one another. These include:

- Different formulations or material compositions
- different barrier systems, coatings or additive packages
- different PFAS-relevant supply chains or raw materials
- product characteristics that go beyond differences in size

Subtypes are variants of a type that do not differ in any relevant way from a testing perspective, such as in terms of size, colour or design.

6.3 Sub-certificates

Sub-certificates are required where certified Total Products, Products, Packaging or Product Content are to be marketed under the name of another company. Sub-certificates may be issued for each certification category, provided that the certified subject, including its PFAS-relevant characteristics, remains unchanged.

6.4 Conformity assessment

The certification partner carries out the conformity assessment based on the documentation submitted. This includes the evaluation of the document review, the analytical results and the plausibility of the overall picture.

If any non-conformities are identified, the certification partner will notify the applicant in writing. The applicant may submit additional documentation or further test samples as part of a re-assessment.

For food contact packaging, appropriate documentation and information shall be provided within the conformity assessment to enable an evaluation of compliance with the PFAS threshold values in accordance with Regulation (EU) 2025/40 (PPWR).

The assessment is carried out by the certification partner on the basis of the submitted documentation as well as additional laboratory analyses where required.

The flustix certification procedure goes beyond these requirements and includes independent third-party verification to ensure robust and auditable substantiation.

6.5 Issuance of the certificate and right of use

Following successful conformity assessment, the applicant shall be issued with a certificate. At the same time, the right to use the "flustix PFAS-FREE" certification mark corresponding to the respective certification category, together with a unique registration number, shall be granted.

The following independent certification categories are distinguished:

- PFAS-FREE Total Product (PFAS-GP)
- PFAS-FREE Product (PFAS-PR)
- PFAS-FREE Packaging (PFAS-VP)
- PFAS-FREE Product Content (PFAS-PI)

The respective certification category forms part of the certificate, the registration number and the public certificate register.

Registration numbers shall be assigned according to the following structure:

- PFAS-GP-000001 – PFAS-FREE Total Product
- PFAS-PR-000001 – PFAS-FREE Product
- PFAS-VP-000001 – PFAS-FREE Packaging
- PFAS-PI-000001 – PFAS-FREE Product Content

The right to use the certification mark and the associated registration number applies exclusively to the certification subject identified in the certificate and may only be used in conjunction with a valid certificate.

6.6 Publications

Information on certificate holders are published on the flustix website and/or that of the certification partner.

The publication shall include at least:

- Name of the certificate holder
- Designation of the certified subject
- Certification category
- Certification mark used (PFAS-GP, PFAS-PR, PFAS-VP or PFAS-PI)
- Registration number
- Date of issue
- Certificate validity period

Publication shall relate exclusively to the certification subject identified in the certificate and the corresponding certification category.

6.7 Validity of the certificate

The certificate is valid for six years, subject to proper monitoring.

6.8 Renewal of the certificate

For renewal, a current positive audit report or proof of monitoring must be submitted in good time before expiry.

6.9 Certificate cancellation

The certificate may be revoked or suspended, in particular, in the event of misuse of the mark, failure to notify relevant changes, negative surveillance results or the loss of certification requirements.

6.10 Modifications / Additions

Any changes to formulations, raw materials, additives, coatings, barriers, suppliers or processes must be reported to the certification partner without delay. The certification partner will decide whether a supplementary assessment or audit is required.

6.11 Rectification of non-conformities

If defects come to light that may affect PFAS-free compliance, the certificate holder is obliged to inform the certification partner immediately and to cooperate in the investigation.

7 Self-monitoring by the manufacturer

The manufacturer must implement appropriate quality assurance measures to ensure that the certified properties of the product are maintained. These include, in particular:

- internal approval processes for changes to formulations or materials
- supplier approval and supplier assessment for PFAS-critical raw materials
- regular review of substance and material lists
- Archiving of relevant safety data sheets, specifications and declarations
- documentation of complaints and non-conformities relating to PFAS

8 External monitoring by the certification partner

External monitoring comprises document reviews, risk screenings and laboratory analytical control tests in accordance with Section 5.2.2. The scope and frequency of monitoring depend on the product group, supply chain stability and the history of previous tests.

Appendix A – Provisional PFAS target substance list

The following list constitutes the mandatory minimum target panel for this edition of the Certification Scheme and establishes the common analytical minimum standard for the testing laboratories participating in the Certification Scheme. In addition, each testing laboratory may extend the target panel, based on its validated analytical capabilities and depending on the matrix, product or specific risk profile, to include further PFAS and relevant precursor compounds. Additional target substances complement the common minimum standard and do not affect the comparability of certification results.

Substance Group	Substance (Chain Length)	Abbreviation	CAS No.	Function within the scheme
Perfluorinated Sulfonic Acids (PFSA)	Perfluorooctane Sulfonic Acid (C8)	PFOS	1763-23-1	classical reference substance
	Perfluorododecane Sulfonic Acid (C12)	PFDoS	79780-39-5	long-chain PFAS
	Perfluorohexane Sulfonic Acid (C6)	PFHxS	355-46-4	classical reference substance
	Perfluorobutane Sulfonic Acid (C4)	PFBS	375-73-5	short-chain PFAS representative
Perfluorinated Carboxylic Acids (PFCA)	Perfluorooctanoic Acid (C8)	PFOA	335-67-1	classical reference substance
	Perfluoroheptanoic Acid (C7)	PFHpA	375-85-9	classical reference substance
	Perfluorohexanoic Acid (C6)	PFHxA	307-24-4	short-chain PFCA
	Perfluorononanoic Acid (C9)	PFNA	375-95-1	PFCA
	Perfluorodecanoic Acid (C10)	PFDA	335-76-2	PFCA
	Perfluorotetradecanoic Acid (C14)	PFTeDA	376-06-7	long-chain PFCA
	Perfluoropentanoic Acid (C5)	PFPeA	2706-90-3	short-chain PFCA
	Perfluorobutanoic Acid (C4)	PFBA	375-22-4	short-chain PFCA
	Perfluoropropionic Acid (C3)	PFPrA	422-64-0	ultra-short-chain PFAS
	Trifluoroacetic Acid (C2)	TFA	76-05-1	ultra-short-chain PFAS / modern relevance
Perfluorinated Ether Carboxylic Acids (PFECA)	4,8-Dioxa-3H-perfluorononanoic Acid	ADONA	919005-14-4	modern replacement substance / production relevance
	Hexafluoropropylene Oxide Dimer Acid	HFPO-DA, GenX, FRD-903	13252-13-6	modern replacement substance
Perfluorinated Sulfonamide	Perfluorooctane Sulfonamide	(P)FOSA	754-91-6	sulfonamide representative
Additional matrix-relevant PFAS according to laboratory assessment	–	–	n.a.	supplementary target substances where applicable

The list of target substances is based on internationally established PFAS screening lists. It may be adapted or expanded as part of the further development of this certification scheme if new scientific findings or regulatory developments make this necessary.

Appendix B – Product group-specific assessment matrix

The following matrix is used for a standardised initial assessment in the certification process.

Product group	Primary risk	Target analysis	Supplementary fluorine sum parameter	Additional testing
Cosmetics	Fluorinated film formers, performance additives	Yes	Yes	INCI and raw material testing
Detergents	Fluorinated surfactants, defoamers, surface chemistry	Yes	Yes	INCI and data sheet testing
Plastic packaging	Masterbatches, additives, coatings	Yes	Yes	Material and data sheet testing
Paper / Cardboard	Fat barriers, food-service coatings	Yes	Yes	Material and data sheet testing
Glass / Metal	Interior paints, seals, liners	Yes	Yes	Component testing
Solid products	fluorinated surface treatments	Yes	optional / risk-based	Component and process testing
Textiles / textile products	Impregnations, coatings, water-, oil- and dirt-repellent treatments	Yes	Yes	Treatment, material and data sheet assessment
Fire extinguishing agents / fire-fighting foams	Fluorinated surfactants, film-forming agents, foam stabilisers, extinguishing additives	Yes	Yes	Formulation and raw material assessment

Appendix C – Minimum documentation required for the certification application

- Completed certification application / questionnaire with a legally valid signature
- Description of the product / packaging / product content / semi-finished product
- Total list of materials and ingredients, where available
- CAS numbers for the ingredients used, where available to the applicant
- Safety data sheets (SDS) for critical substances, where available to the applicant
- Supplementary manufacturer, supplier or specification documents, where available and required for the assessment
- current specifications, technical data sheets and, where applicable, coating information, where available to the applicant

- Current test report from a recognised testing laboratory, unless commissioned via the certification partner
- Confirmation that no PFAS are intentionally used in the manufacturing process

Final note

This version is intended as a robust working basis for the internal and partner-related further development of the scheme. It combines a broad PFAS scope with an operational, certifiable verification approach, thereby providing the foundation for a market-ready flustix PFAS-FREE certification scheme.

The conformity assessment is primarily based on the independent analytical laboratory assessment carried out in accordance with this certification scheme. Available documentation supports the preparation, execution and technical interpretation of the analytical assessment. The absence of individual supporting documents does not automatically preclude certification where a reliable conformity assessment remains possible.

Appendix D – Examples of interpretation

The following examples serve to ensure a consistent interpretation of this certification scheme. They are intended as an aid to interpretation and do not replace the certification body's decision in individual cases.

Example 1 – Cosmetic formulation with no target findings and a low Fluorine sum parameter (EOF)

According to the full ingredient declaration, a face cream contains no fluorinated raw materials. The target panel is unremarkable. The fluorine sum parameter (EOF) value is 18 ppm. The formulation meets the requirements of this scheme.

Example 2 – Paper packaging with an unremarkable target panel but a high Fluorine sum parameter (EOF)

A fibre-based food packaging shows no relevant individual findings in the target panel, but displays a significantly elevated fluorine sum parameter (EOF) result above the product group-specific limit. Additionally, the documentation indicates the presence of a grease-repellent barrier. The packaging is not certifiable.

Example 3 – Plastic packaging with technical background findings

An rHDPE packaging is unremarkable in the target panel. The fluorine sum parameter (EOF) result is slightly above the internal laboratory background level, but within the scheme's limit value. There is no evidence of fluorinated additives or coatings. The packaging can be certified following a plausibility check.

Example 4 – Product with intentionally used fluorinated functional chemistry

The data sheets submitted indicate the use of a fluorinated performance additive. In this case, the certification process must be assessed negatively, even if individual target substances are not detected by laboratory analysis.

Appendix E – Audit and laboratory focus by product group

Product group	Audit focus	Laboratory focus
Cosmetics	INCI, raw material suppliers, water- and oil-repellent claims, film formers, performance additives	LC-MS/MS panel plus fluorine sum parameter (EOF)
Detergents	Surfactant and auxiliary agent testing, technical data sheets, defoamers	LC-MS/MS panel plus fluorine sum parameter (EOF)
Plastic packaging	Masterbatch, additive and coating supply chain	Target panel, extraction, fluorine sum parameter (EOF)
Paper / Cardboard	Barrier system, wet strength agents, food service applications	Target panel, fluorine sum parameter (EOF), plausibility checking
Glass / Metal	Interior coatings, seals, liners, lid systems	Component-specific extraction
Solid products	Surface treatment, impregnation, process chemicals	Risk-based component testing
Textiles / textile products	Treatment, impregnation, coating, PFAS-relevant functional chemistry	Target panel plus fluorine sum parameter, matrix-specific extraction
Fire extinguishing agents / fire-fighting foams	Review of formulation, surfactants, film-forming agents, foam additives and supply chain	LC-MS/MS target panel plus fluorine sum parameter (CIC/EOF depending on the product matrix)