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Brussels, 1.8.2022
C(2022) 5372 final

COMMISSION IMPLEMENTING DECISION

of 1.8.2022

on a standardisation request to the European Committee for Standardisation and the European Committee for Electrotechnical Standardisation as regards plastics recycling and recycled plastics in support of the European Strategy for Plastics in a Circular Economy

(Only the English, French and German texts are authentic)

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(Only the English, French and German texts are authentic)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation, amending Council Directives 89/686/EEC and 93/15/EEC and Directives 94/9/EC, 94/25/EC, 95/16/EC, 97/23/EC, 98/34/EC, 2004/22/EC, 2007/23/EC, 2009/23/EC and 2009/105/EC of the European Parliament and of the Council and repealing Council Decision 87/95/EEC and Decision No 1673/2006/EC of the European Parliament and of the Council¹, and in particular Article 10(1) thereof,

Whereas:

- (1) The European Strategy for Plastics in a Circular Economy² has established a policy framework for circular plastics. The strategy includes an objective to improve the economics and quality of plastics recycling. In particular, to facilitate greater uptake of recycled content in plastic products, the strategy calls on the key actors of the plastics value chain to work together and improve design-for-recycling of plastic products as well as the quality of inputs to the recycling industry, and create viable markets for recycled plastics. Given that plastics are often recycled by small and predominantly regional facilities, and more scale and standardisation would support smoother market operation, the Commission has committed to working with the European Committee for Standardisation and the industry to develop quality standards for sorted plastic waste and recycled plastics.
- (2) European standards and standardisation deliverables are necessary to help ensuring high levels of interoperability and environmental protection as regards plastics recycling and recycled plastics throughout the Union and thus contribute to free movement of plastics for recycling and recycled plastics in the Union. Given that such standards are technology-neutral and performance-based, they also contribute to ensuring equal conditions of competition among relevant economic operators dealing with plastics recycling and recycled plastics, in particular small and medium-sized enterprises. Indirectly those standards and standardisation deliverables also contribute to lower operating and production costs benefitting consumers in particular.

¹ OJ L 316, 14.11.2012, p. 12.

² COM(2018) 28 final of 16 January 2018.

- (3) The European Committee for Standardisation (CEN) analysed over 1100 existing standardisation initiatives at national, European and international levels and in its final report on sustainable chemicals of 21 December 2018, identified standardisation needs related to the quality of inputs to plastics recycling, the quality of recycled plastics as well as design-for-recycling of plastic products including the separability of recyclable components.
- (4) The Commission launched a Circular Plastics Alliance (CPA) in December 2018 to help increasing recycled content in plastic products by mobilising action from all players in the plastic value chain, from plastic producers and designers, through brands and retailers, to recyclers, in line with the European Strategy for Plastics in a Circular Economy. In 2016 only 3.9 million tonnes of recycled plastics found their way into new products on the Union market. The key objective of CPA initiative has been to help reach the target set by the Commission in the strategy that ten million tonnes of recycled plastics find their way into new products on the Union market by 2025.
- (5) In its declaration of 17 July 2019, the CPA endorsed the ten million tonnes target on recycled content set by the Commission. To achieve that target, the CPA committed to develop, update or revise design-for-recycling guidelines and actively contribute to the update of CEN and industry standards on recyclability and related standards; develop standardised methods to assess the quality of the sorted plastic waste; and actively support the development or revision of European standards and guidelines on the quality of plastics recycling and recycled plastics. The CPA thus identified 26 priority product categories in its Design-for-Recycling Work Plan of 23 September 2021 and reviewed standardisation needs for each of those categories.
- (6) The intention to request drafting of European standards and European standardisation deliverables addressing the procedural and infrastructure issues for recycling to support the quality of the plastics recycling value chain, and covering the recyclability of plastic products and the quality of sorted plastic waste and recycled plastics is stated in the annual Union work programme for European standardisation for 2022³.
- (7) It is now time to start this standardisation work without delay in order to unlock the uptake of recycled plastics in the Union market and achieve the 10 million tonnes target set in the European Strategy for Plastics in a Circular Economy.
- (8) CEN and the European Committee for Electrotechnical Standardisation (CENELEC) have indicated that the work covered by the request falls entirely within their area of competence.
- (9) It is therefore appropriate to request CEN and CENELEC to draft new European standards and European standardisation deliverables and revise the relevant European standards in support of the policy objectives to improve the quality and economics of plastics recycling and increase the uptake of recycled plastics in new products to at least 10 million tonnes by 2025.
- (10) Following from the preliminary analysis carried out by the Commission and CEN and complemented by the Circular Plastics Alliance, the requested standardisation work should focus on three priority topics: recyclability and design-for-recycling of plastic products; characterisation and classification of the quality of sorted plastics wastes; and characterisation and assessment of the quality of recycled plastic materials. These three areas are inter-twined and mutually reinforcing to achieve the abovementioned policy objectives.

³ C(2022) 546 final of 2 February 2022

- (11) The European standardisation organisations (ESO) have agreed to follow the Guidelines for the execution of standardisation requests⁴.
- (12) In order to ensure transparency and facilitate the execution of the requested standardisation activities CEN and CENELEC should prepare a work programme and submit it to the Commission.
- (13) In order to enable the Commission to better monitor the requested standardisation work, CEN and CENELEC should provide the Commission with access to an overall project plan containing detailed information on the execution of the standardisation request.
- (14) In order to achieve the objectives of the European Strategy for Plastics in a Circular Economy², the Commission announced in A new Circular Economy Action Plan for a cleaner and more competitive Europe⁵ that it will propose mandatory requirements on recycled plastic content for key products such as packaging, construction materials and vehicles. It is therefore necessary to provide for establishment of close cooperation between CEN and CENELEC and the Commission to ensure consistency between the requested documents and those regulatory developments.
- (15) Experience shows that during execution of the standardisation request, it may be necessary to adjust the scope of the request or the deadlines set therein. CEN and CENELEC should therefore promptly report to the Commission if they consider that more time is required to draft the standards than initially foreseen or that it is appropriate to adapt the scope of the request, in order to allow the Commission to take appropriate action.
- (16) In accordance with Article 10(3) of Regulation (EU) No 1025/2012 each standardisation request is subject to acceptance by the relevant European standardisation organisation. It is therefore necessary to provide for the rules on validity of this request if it is not accepted by CEN or CENELEC.
- (17) In order to ensure legal certainty as to the validity of the request after its execution, it is appropriate to provide for a date of expiry of this Decision.
- (18) The European standardisation organisations, the European stakeholders' organisations receiving Union financing, Member States sectoral experts and other relevant stakeholder initiatives such as the Circular Plastics Alliance have been consulted.
- (19) The measures provided for in this Decision are in accordance with the opinion of the Committee established by Article 22 of Regulation (EU) No 1025/2012,

HAS ADOPTED THIS DECISION:

Article 1
Requested standardisation activities

The European Committee for Standardisation (CEN) and the European Committee for Electrotechnical Standardisation (CENELEC) are requested to draft European standards and European standardisation deliverables listed in Table 1 of Annex I and to revise European standards and European standardisation deliverables listed in Table 2 of Annex I, in support of the European Strategy for Plastics in a Circular Economy, for plastics recycling and recycled plastics, by the deadlines set in that Annex.

⁴ SWD(2015) 205 final of 27 October 2015

⁵ COM(2020) 98 final of 11 March 2020

The European standards and European standardisation deliverables referred to in the first paragraph shall meet the requirements set out in Annex II.

Article 2
Work programme

CEN and CENELEC shall prepare the joint work programme indicating all European standards and European standardisation deliverables listed in Annex I, the responsible technical bodies and a timetable for the execution of the requested standardisation activities in line with the deadlines set out in that Annex.

CEN and CENELEC shall submit the joint work programme to the Commission by 2 February 2023.

CEN and CENELEC shall provide the Commission with access to an overall project plan. The project plan shall include arrangements ensuring cooperation between CEN and CENELEC and the Commission for the execution of the requested standardisation activities.

Article 3
Reporting

1. CEN and CENELEC shall report annually to the Commission on the execution of the request referred to in Article 1 indicating the progress made in implementation of the work programme referred to in Article 2.

2. CEN and CENELEC shall submit the first joint annual report to the Commission by 2 August 2023. Subsequent joint annual reports shall be submitted to the Commission by 1 October each year.

3. CEN and CENELEC shall provide the Commission with the joint final report by 2 December 2025.

4. CEN and CENELEC shall promptly report to the Commission any major concerns relating to the scope of the request referred to in Article 1 or the deadlines set in Annex I.

Article 4
Validity of the standardisation request

If CEN or CENELEC do not accept the request referred to in Article 1 within a month of receiving it, the request shall not constitute a basis for the standardisation activities referred to in that Article.

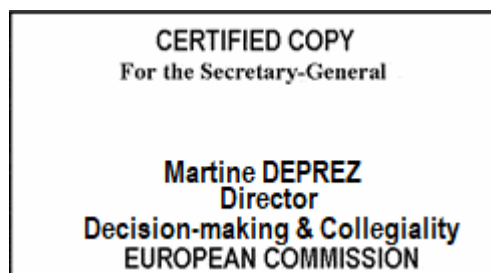
This Decision shall expire on 2 June 2026.

Article 5
Addresses

This Decision is addressed to the European Committee for Standardisation and the European Committee for Electrotechnical Standardisation.

Done at Brussels, 1.8.2022

For the Commission
Thierry BRETON
Member of the Commission





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ANNEXES 1 to 2

ANNEXES

to the COMMISSION IMPLEMENTING DECISION

on a standardisation request to the European Committee for Standardisation and the European Committee for Electrotechnical Standardisation as regards plastics recycling and recycled plastics in support of the European Strategy for Plastics in a Circular Economy

ANNEX I

European standards and European standardisation deliverables referred to in Article 1

Table 1. List of new European standards and European standardisation deliverables to be drafted and deadlines for their adoption

Reference information		Deadline for the adoption by the ESOs
1.	European standard(s) on the process and criteria to evaluate the recyclability of plastic packaging.	2 August 2025
2.	European standard(s) on the definitions and principles for design-for-recycling of plastic packaging.	2 August 2025
3	European standardisation deliverables on design-for-recycling guidelines for plastic packaging products: polyolefins flexibles; polystyrene (PS) cups, trays and dairy packaging; polyolefins rigids; polyethylene terephthalate (PET) beverage bottles; PET trays; expanded polystyrene (EPS) packaging.	2 August 2025
4	European standardisation deliverables on design-for-recycling guidelines for plastic construction products: flooring products; EPS insulation products; polyvinyl chloride (PVC) cable management products; synthetic waterproofing and roofing membranes; PVC pipes and fittings; PE pipes and fittings; PVC profiles.	2 August 2025
5	European standardisation deliverables on design-for-recycling guidelines for electronic and electrical equipment: large appliances- polypropylene (PP) and PS products and parts; small appliances - acrylonitrile butadiene styrene (ABS) products and parts.	2 August 2025
6	European standardisation deliverables on Road vehicles- Post-shredding recycling - design-for-recycling guidelines for plastic products.	2 August 2025
7	European standardisation deliverables on information and guidance to professional users on design-for-recycling and use of agricultural plastic products: mulching films; small tunnel films; greenhouse films; irrigation pipes and flexibles (excluding PVC and PE pipes covered by point 4); silage films; balewrap nets; protection nets; twines; non-wovens; barrier films; covering films.	2 August 2025
8	European standardisation deliverable(s) on quality grades for sorted plastics wastes: HDPE, LDPE, PP, PET, PVC, PS, EPS.	2 August 2025
9	European standard(s) on characterisation of Acrylonitrile butadiene styrene (ABS) recyclates.	2 August 2025

10	European standardisation deliverable(s) on quality assessment of plastic recyclates for use in products: rHDPE, rLDPE, rPP, rPET, rPVC, rPS, rEPS , rABS.	2 August 2025
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Table 2. List of existing standards to be revised and deadlines for their adoption

Reference information		Deadline for the adoption by the ESOs
1.	EN 15347:2007 Plastics – Recycled plastics – Characterisation of plastics wastes.	2 August 2025
2.	EN 15342:2007 Plastics - Recycled plastics - Characterisation of polystyrene (PS) recyclates.	2 August 2025
3.	EN 15344:2021 Plastics – Recycled Plastics – Characterisation of polyethylene (PE) recyclates.	2 August 2025
4.	EN 15345:2007 Plastics – Recycled Plastics – Characterisation of polypropylene (PP) recyclates.	2 August 2025
5.	EN 15346:2014 Plastics – Recycled Plastics – Characterisation of poly(vinyl chloride) (PVC) recyclates.	2 August 2025
6.	EN 15348:2014 Plastics - Recycled plastics - Characterisation of poly(ethylene terephthalate) (PET) recyclates.	2 August 2025
7.	EN 13206:2017 Plastics - Thermoplastic covering films for use in agriculture and horticulture.	2 August 2025
8.	EN 13207:2018 Plastics - Thermoplastic silage films and tubes for use in agriculture.	2 August 2025
9.	EN 17098-1:2018 Plastics. - Barrier films for agricultural and horticultural soil disinfection by fumigation. – Part 1: Specifications for barrier films.	2 August 2025
10.	EN 14932:2018 Plastics -Thermoplastic stretch films for wrapping silage bales.	2 August 2025
11.	EN 13655: 2018 Plastics - Thermoplastic mulch films recoverable after use, for use in agriculture and horticulture.	2 August 2025

ANNEX II

Requirements for the European standards and European standardisation deliverables referred to in Article 1

Part A. General requirements for European standards and European standardisation deliverables listed in Annex I

For the purposes of Annexes I and II, the following definitions apply:

- (1) 'plastic' means a material consisting of a polymer as defined in point 5 of Article 3 of Regulation (EC) 1907/2006¹, to which additives or other substances may have been added, and which can function as a main structural component of final products, with the exception of natural polymers that have not been chemically modified;
- (2) 'recycling' means recycling as defined in Article 3(17) of Directive 2008/98/EC of the European Parliament and of the Council²;
- (3) 'product design' means product design as defined in Article 3(10) of Directive 2009/125/EC of the European Parliament and of the Council³;
- (4) 'environmental impact' means environmental impact as defined in Article 3(12) of Directive 2009/125/EC;
- (5) 'recyclates' means plastic materials resulting from recycling of plastic waste, that is no longer waste and can be used for the manufacturing of new articles or products, and can be reformulated using additives;
- (6) 'product category' means a specific product application with a specific plastic material as its main structural component.

European standards and standardisation deliverables shall reflect the generally acknowledged state of art, be technology-neutral and performance-based. They shall ensure reproducible results based on test protocols, allowing for independent and scientific interpretation of the results.

European standards and standardisation deliverables may build on any relevant existing European and international technical specifications. A list of relevant standardisation initiatives as well as European industry and other guidelines is provided in Appendixes 1 and 2.

Part B. Specific requirements for drafting new standards and European standardisation deliverables listed in Table 1 of Annex I

1. Requirements for specific standards and European standardisation deliverables

¹ 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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (OJ L 396, 30.12.2006, p. 1).

² Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3).

³ Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products (OJ L 285, 31.10.2009, p. 10).

1.1 Standards and European standardisation deliverables on recyclability and design-for-recycling listed in points 1 to 7 of Table 1 of Annex I

The European standard(s) on the process and criteria to evaluate recyclable plastic packaging shall describe the following:

- (a) the steps in the evaluation process, including for new-to-market packaging products;
- (b) the methodology to determine the necessary testing;
- (c) the measurement methods and test protocols to ensure reproducible results;
- (d) the rules and methods to use any test results for evaluating plastic packaging recyclability in an independent and neutral manner.

The European standard(s) on the definitions and principles for design-for-recycling of plastic packaging shall operationalise the definition of recyclable packaging into basic principles to ensure the recyclability of a packaging product at the early stage of product design and allow a quantitative and qualitative assessment of this recyclability. It shall include a list of the product design characteristics to be evaluated at the product design stage, including colour, additives, size, and barrier, and their expected impact on recyclability in general terms. It shall lay down rules to identify the reference technology for sorting and recycling and/or processes for this assessment.

The European standardisation deliverable(s) on design-for-recycling guidelines per specific product category shall provide guidance on the impact of specific design characteristics on the recyclability of the product in practice and the recommended design options to ensure the product is recyclable, including target values and performance ranges where applicable.

European standards and European standardisation deliverables shall define the following terms:

- (1) recyclable plastic packaging or other product;
- (2) design-for-recycling.

For the purposes of defining ‘recyclable plastic packaging or other product’ CEN and CENELEC may consider the following definition: a packaging or other product which can be sorted and recycled in practice and at scale with state-of-the-art technology and infrastructure, and deliver recycled plastic of suitable quality to be integrated into new products.

For the purposes of defining ‘design-for-recycling’ CEN and CENELEC may consider the following definition: packaging or other product design aiming to ensure that the packaging or other product is recyclable. When defining ‘design-for-recycling’, CEN and CENELEC shall take due account of the concept of a circular economy where the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste is minimised, and of the objective of design-for-recycling to maintain the product’s value after recycling, including by ensuring that the quality of the recycled materials is suitable for use back into the same product category or, where the latter is proven not technically or economically feasible, nor the best environmental option, into applications of equivalent quality or economic utility.

1.2 European standardisation deliverables on quality grades for sorted plastic waste listed in point 8 of Table 1 of Annex I

The requested European standardisation deliverable(s) shall build on the requested revision of EN 15347 on the characterisation of sorted plastic waste in order to establish quality grades in view of recycling. The grades shall be based on pre-determined sets of measured characteristics, taking into account sectorial and market specificities and related information needs.

1.3 European standard(s) and standardisation deliverable(s) on quality assessment of plastic recyclates for use in products listed in points 9 and 10 of Table 1 of Annex I

The requested European standard(s) and standardisation deliverable(s) shall build on the requested revision of EN 15342, 15344, 15345, 15346, 15348 on the characterisation of plastic recyclates, in order to allow a quality assessment and classification of plastic recyclates in view of their converting into products. The standards shall include pre-determined sets of characteristics covering the information needed for specific converting processes or product applications, taking into account sectorial and market specificities. Where appropriate, the standards may include performance ranges for selected characteristics and establish performance classes, taking into account existing product standards and classifications.

Part C. Specific requirements for revision of existing standards listed in Table 2 of Annex I

1. Requirements for specific standards and European standardisation deliverables

1.1 Standards on characterisation of plastics wastes listed in point 1 of Table 2 of Annex I

The existing European standard on ‘Plastics – Recycled plastics – Characterisation of plastics wastes’ shall be revised to include standardised data sheets providing sufficient information on the characteristics of plastics recycling inputs from all waste streams for recyclers to estimate the characterisation of recycling outputs made from these inputs. The list of required data/characteristics shall be expanded and measurement methods and/or test protocols added to ensure reproducible results and comparable data.

1.2 Standards on characterisation of recyclates listed in points 2 to 6 of Table 2 of Annex I

The existing European standards on ‘Plastics – Recycled plastics – Characterisation of xxx recyclates’ shall be revised to provide a consistent framework for standardised data sheets providing sufficient information on plastic recyclates to estimate the technical specifications of the product in which they are subsequently integrated. The list of the required data shall be expanded and measurement and test methods added. Standardised data sheets shall be interoperable, including for (digital) trading.

1.3 Standards on technical specifications for agricultural plastics listed in points 7 to 11 of Table 2 of Annex I

The existing European Standards on technical specifications for agricultural plastic products shall be revised to include the provision of an end-of-life management solution as a product specification.

Appendix 1

List of relevant existing standards and standardisation initiatives to be considered for the execution of this request

Reference	Title
EN 45555:2019	General methods for assessing the recyclability and recoverability of energy-related products
IEC 62430:2019	Environmentally conscious design - Principles, requirements and guidance
ISO 14006:2020	Environmental management systems - Guidelines for incorporating eco-design
EN13430:2004	Packaging. Requirements for packaging recoverable by material recycling
CEN/TR13688:2008	Packaging - Material recycling - report on requirements for substances and materials to prevent a sustained impediment to recycling
CR13695-1:2000	Packaging - requirements for measuring and verifying the four heavy metals and other dangerous substances present in packaging and their release into the environment - Part 1: Requirements for measuring and verifying the four heavy metals present in packaging
CEN/TR13695-2:2019	Packaging - requirements for measuring and verifying the four heavy metals and other dangerous substances present in packaging and their release into the environment - Part 2: Requirements for measuring and verifying dangerous substances present in packaging, and their release into the environment
EN 15343:2007	Plastics - Recycled Plastics - Plastics recycling traceability and assessment of conformity and recycled content
CEN/TR 15353:2007	Plastics—Recycled plastics—Guidelines for the development of standards for recycled plastics
EN17410: 2021	Plastics - Controlled loop recycling of PVC-U profiles from windows and doors
EN 643:2014	Paper and board – European list of standard grades of paper and board for recycling
PWI 00261469, prEN xxxxx	Packaging – Quality grades for plastic packaging for recycling and measuring recycling
Preliminary WI 00249A3K	Quality requirements for application of plastic recyclates in

	products - Part 1: General
Preliminary WI 00249A3C	Quality requirements for application of plastic recyclates in products - Part 2 : Polyethylene (PE)
Preliminary WI 00249A3I	Quality requirements for application of plastic recyclates in products - Part 3 : Polypropylene (PP)
Preliminary WI 00249A3D	Quality requirements for application of plastic recyclates in products - Part 4 : Poly(vinyl chloride) (PVC)
Preliminary WI 00249A3E	Plastics — Quality requirements for application of plastic recyclates in products — Part 5 : Poly(ethylene terephthalate) (PET)
Preliminary WI 00249A3F	Plastics — Quality requirements for application of plastic recyclates in products — Part 6 : Polystyrene (PS)
Preliminary WI 00249A3G	Plastics — Quality requirements for application of plastic recyclates in products — Part 7 : Polyamide (PA)
Preliminary WI 00249A3H	Plastics — Quality requirements for application of plastic recyclates in products — Part 8 : Poly (acrylo butadiene styrene) (ABS)
Preliminary WI 00249A3J	Plastics — Quality requirements for application of plastic recyclates in products — Part 9 : Polycarbonate (PC)
DIN SPEC 91446: 2021-12	Classification of recycled plastics by Data Quality Levels for use and (digital) trading
FprEN/TS 14541-1	Plastics pipes and fittings - Utilisation of thermoplastics recyclates – Part 1: Terminology
FprEN/TS 14541-2	Plastics pipes and fittings - Utilisation of thermoplastics recyclates – Part 2: Recommendations for relevant characteristics

Appendix 2

List of relevant European industry and other guidelines to be considered for the execution of this request

Source	Title
Recyclclass	Design-for-recycling guidelines for household and commercial packaging: PE and PP transparent and coloured flexible films; HDPE and PP natural and coloured containers and tubes; PS coloured containers (except XPS and EPS)

Circular Economy for Flexible Packaging (CEFLEX)	'Designing for a circular economy' guidelines
European PET Bottle Platform (EPBP)	PET recycling test protocol and design-for-recycling guidelines for PET bottles
Circular Plastics Alliance (CPA)	Guidance on waste definitions and definitions for the CPA monitoring system.
Petcore Europe	Recyclability evaluation protocol for PET trays and design-for-recycling guidelines for PET thermoformed trays, clear transparent for recycling into food and non-food applications.