



Business plan 2024

CEN/TC 249 Plastics

Date: 2024/02/14



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Executive summary

Standards developed by CEN/TC 249 represent European best practice achieved through an open, transparent, and consensus-based process, ensuring the quality, safety, durability, and recycling of plastic materials to address production efficiencies, as well as dimensional and functional specifications.

CEN/TC 249 is responsible for standardization of: (1) terminology, (2) test methods, (3) specifications, classifications, and designation systems, (4) environmental aspects, (5) joining systems and techniques – of plastics, plastic-based materials, semi-finished products, and products (thermoplastics, thermosets, degradable plastics, bio-based polymers, thermoplastic elastomers, composites, reinforcement products for plastics and recyclates).

Rubber is excluded. Specific end-product related items are also excluded if they are covered by the scope of an existing product TC.

Benefits

To define the necessary standards to be used to perform the desired level of commercial interoperability in Europe, the TC acts to ensure:

- the removal of trade barriers;
- the maintenance cost reduction;
- the minimization of environmental impacts; and
- the maximization of the confidence of users and end users.

Priorities

To make European standards available related to:

- C(2022)5372 – Standardisation request M/584 on plastics recycling and recycled plastics;
- Revision of existing standards in accordance with market needs;
- Confidence of consumers, considering requirements for specific applications; and
- Monitoring the system of European directives and requirements of other mandatory bodies and the related standards.

1 Business environment of the CEN/TC

1.1 Description

The following political, economic, technical, regulatory, legal, societal and/or international dynamics describe the business environment of the industry sector, products, materials, disciplines, or practices related to the scope of this CEN/TC and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards.

1.1.1 Market environment

Plastics are a 21st century material powering the improvement of human welfare and innovative developments to meet the challenges of society. They offer a panel of economical solutions to a wide variety of situations. Plastics facilitate resource efficiency and climate protection. The plastics industry is a major contributor in the context of green economy and the efficient and sustainable use of material resources.

Both general purpose and specialty polymers are subject to continuous improvement, e.g., better intrinsic properties achieved by the production of new technologies, better mechanical or environmental performances by plastic-based composites, lower carbon footprint thanks to recycling, extended shelf-life. Up to date, quick, adequate, and economical test methods are necessary to assess relevant properties in relation to the target applications.

Finally, new trends and innovations in plastics industry may need to be addressed by new standards; this is for example the case when using nano materials in plastics. Nanoparticles provide plastics with special characteristics and may require the development of specific test methods for characterization, measure of dispersion, etc.

1.1.2 Regulatory environment

The EU adopted a European strategy for plastics in January 2018. It is part of the EU's circular economy action plan and builds on existing measures to reduce plastic waste. The EU's plastics strategy aims to transform the way plastic products are designed, produced, used and recycled in the EU. To reach this goal, the Strategy calls for a series of actions: among them, a strong focus on design-for-recycling for plastic products and on the quality of plastic waste and recyclates.

On 2 August 2022, the European Commission notified to CEN and CENELEC the new Standardization Request on plastics recycling and recycled plastics

(M/584)¹, in support of the European Strategy for Plastics in a Circular Economy. Work on this Standardization Request will involve seven CEN Technical Committees, including CEN/TC 249 and two CENELEC Technical Committees, all committed to deliver by August 2025.

The EU is taking additional action to tackle plastic pollution and marine litter to accelerate the transition to a circular and resource-efficient plastics economy. Specific rules and targets apply to certain areas, including single-use plastics², plastic packaging, bio-based, biodegradable, and compostable plastics³, and recently, the adoption of several initiatives on microplastics, including REACH restriction addressing intentionally added microplastics⁴ and a proposal for a Regulation on preventing pellet losses to reduce microplastics pollution⁵.

Several sectors, where plastics are a vital part, are subject to regulatory compliance, as concerns for example construction, packaging, food contact materials, electrotechnical devices and waste management. Considering the scope of CEN/TC 249, it is principally concerned with the Construction Products Regulation (CPR)⁶.

As standards under the scope of CEN/TC 249 do not deal with the chemical composition of plastics, REACH is only considered as guidelines in a responsible approach and sustainability of materials and products covered by the TC. Harmonised standards in the context of the CPR address the release of dangerous substances, according to testing procedures set up by CEN/TC 351.

¹ 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

https://ec.europa.eu/growth/tools-databases/enorm/mandate/584_en

² 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

https://environment.ec.europa.eu/topics/plastics/single-use-plastics_en

³ The EU's policy framework on the sourcing, labelling and use of biobased plastics, and the use of biodegradable and compostable plastics

https://environment.ec.europa.eu/topics/plastics/biobased-biodegradable-and-compostable-plastics_en

⁴ Protecting environment and health: Commission adopts measures to restrict intentionally added microplastics

https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4581

⁵ Proposal for a Regulation on preventing pellet losses to reduce microplastic pollution

https://environment.ec.europa.eu/publications/proposal-regulation-preventing-pellet-losses_en

⁶ Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32011R0305>



1.1.3 Stakeholders

CEN/TC 249 develops its own deliverables, (EN, CEN/TS and CEN/TR) and equally adopts standards developed by ISO/TC 61 (Plastics), thanks to an intensive utilization of the Vienna Agreement where an added value for Europe has been identified.

The work of CEN TC/249 is enhanced by close collaboration with liaisons organisations:

- CEFIC, *European Chemical Industry Council*
- CEFLEX, *Association for the Circular Economy for Flexible Packaging*
- CEWEP, *Confederation of European Waste-to-Energy Plants*
- ECOS, *Environmental Coalition on Standards*
- EUMEPS, *European Manufacturers of Expanded Polystyrene*
- EuRIC, *European Recycling Industries' Confederation*
- FEAD, *European Waste Management Association*
- PRE, *Plastics Recyclers' Europe*
- Plastics Europe, *Association of Plastics Manufacturers*

Experts in the various working groups come from the plastics industry, including producers, converters, recyclers, as well as laboratories, certification bodies, universities and research bodies, SMEs and NGO entities and authorities, depending on which WG is concerned.

CEN/TC 249 participates actively in the CEN and CENELEC Coordination Group on Circular Plastics, an advisory and coordinating body, and advises to the CEN and CENELEC Technical Boards on strategic matters related to the standardization activities of the Circular Plastics sector. Until the Standardization Request M/584 has been delivered, the Coordination Group will focus on its execution and coordination between the relevant CEN technical committees.

As part of the CEN and ASTM Technical Cooperation Agreement, CEN/TC 249 also participates in facilitating technical standardization dialogue with the ASTM Committee D20 on Plastics⁷, with focus on *Recycled Plastics* and *Environmentally Degradable Plastics and Biobased Products*.

1.2 Quantitative Indicators

All figures relate to the year 2021.

The total plastics production in Europe reached 57.2 million tonnes⁸.

⁷ Committee D20 on Plastics

<https://www.astm.org/committee-d20>

⁸ Plastics – the Facts 2022

<https://plasticseurope.org/knowledge-hub/plastics-the-facts-2022/>



Almost 26 million tonnes of plastic waste are generated in Europe every year⁹.

The demand from European converters increased to 50.3 million tonnes with the following segmentation by resin types and mean markets.

More than 10 million tonnes of postconsumer plastics waste were sent to recycling in 2020 in the EU27+3.

5.5 million tonnes post-consumer recycled plastics were used in new products and parts in the EU27+3 in 2021, representing about 10% recycled content rate in plastics conversion, and an increase of about 20% compared to 2020.

2 Benefits expected from the work of the CEN/TC

The plastics industry and all other interested parties will benefit from the standards, technical specifications, and technical reports, as appropriate, helping in technical exchanges, trade, competitiveness, communication, and better quality. A large spectrum of matters is covered:

- Terminology, vocabulary, abbreviated terms, definitions
- Designation of materials
- Characteristics and properties of materials
- Classes of performance of products and semi-finished products
- Specifications for products
- Up to date methods of testing
- Recommended practices, including e.g., welding
- Templates for declaration and communication

Plastics and plastic-based materials, semi-finished products and products apply, as well as plastic reinforcement products, plastics degradability, and recycling. More recently, bio-based plastics have also been considered.

Several harmonised standards will allow the CE marking of products under the CPR, resulting in access to the market.

In general, the most competitive or economical solution is an identified benefit. However, it cannot be achieved in every case, for technical reasons.

3 Participation in the CEN/TC

All national members of CEN are entitled to nominate delegates to CEN Technical Committees and experts to Working Groups, ensuring a balance of all interested parties. Participation as an observer from recognised European or international

⁹ Plastics - Environment.ec.europa.eu
https://environment.ec.europa.eu/topics/plastics_en



organisations is also possible, under certain conditions. To participate in the activities of this CEN/TC, please contact the national standards organization in your country. A balanced representation is preferred.

Given the diversity of plastic monomers and products, the structure of CEN/TC 249 comprises 11 working groups, established by the Technical Committee to undertake a specific short-term tasks and target dates. The collaboration between ISO and CEN should also be emphasised, as projects are deployed under the Vienna Agreement framework, where applicable and relevant.

4 Objectives of the CEN/TC

4.1 Defined objectives

The objectives of the CEN/TC are directly related to the requirements of the European plastics sector. They are proposed, discussed and decided upon by the concerned stakeholders before any amendment of the work programme and the possible creation of a working group.

Requirements may be for instance:

- Description of new test methods taking into consideration the recent development of more accurate and sensible techniques;
- Update of existing test methods when such techniques are still in usage;
- Characterisation of materials and declaration of properties to better suit the needs of the value chain and its final users, increasing product confidence and reliability;
- Setting up requirements to select the best materials or products for the purpose and elimination of those not totally under control;
- Drafting common templates for communication to avoid any misinterpretation of data.

4.2 Identified strategies to achieve the CEN/TC's defined objectives

The main axes of the TC strategy are:

- Business plan endorsed by members, liaisons, affiliates and partner organizations before submission to CEN/BT;
- Be open to start any discussion about new areas for standardisation in the field of plastics;
- Adapt the TC structure (i.e. working groups) in accordance to the work programme requirements and to the available resources in terms of expertise, finance and professional support;

- Transpose ISO standards under the Vienna Agreement as much as possible when the ISO documents are fully suitable for the European market. The European status of these standards should be beneficial to the industry, compared to the status of the equivalent ISO document (e.g.: harmonisation, compulsory, rationalisation);
- Work in parallel with ISO under the Vienna Agreement for new standards if possible (if suited to European requirements);
- When working with ISO, the lead should be decided item by item;
- Develop new CEN standards for specific European requirements. Existing documents should be taken as starting drafts, whenever possible (modified ISO, national standards, guides, technical documents);
- Outside the terms of the already mentioned Vienna Agreement, liaisons with other European bodies (within CEN or not) are encouraged, if a positive input is expected;
- Invite experts on an ad hoc basis when very accurate knowledge is necessary;
- Liaise as often as necessary with the CEN consultant and the EC services to guarantee standards in line with the mandates;
- Try in all cases to reach consensus and in case of lack of approximation of views, restructure the problematic standard(s) to offer a solution to the opponents;
- Decide on the most appropriate deliverable, depending on the situation; that may include e.g. non-consolidated knowledge, development of technologies;
- Delete any draft from the work programme and disband the responsible working group, if a lack of support and interest is clearly identified;
- In contrast, encourage any innovative subject if it can be of general interest to the European plastics industry and if a balanced panel of experts is committed to working together.

4.3 Environmental aspects

4.3.1 Key environmental issues associated with the scope of the work covered by the CEN/TC

Plastics in their various forms and products, are important parts of our lives and economies. However, today's consumption cycle of plastics usually revolves around production, use and discard. Incorporating a circular approach will help maximise economic and environmental benefits, which are not captured effectively at the moment. CEN/TC 249 is committed to providing such deliverables, as a significant part of the work programme addresses such items, e.g. saving of resources, characterisation of degradability, in particular biodegradability, recycling of plastics, bio-based polymers and composite materials, as well as waste management, to name a few.

Additionally, a demand/information-driven approach is being introduced by technical committee, with the intention to support the goal of further uptake of recyclates in products by looking at the actual needs of products.

4.3.2 The above-mentioned key issues will be reflected by the following
In all New Work Item proposals and formatted resolutions associated with the scope of the work covered by the CEN/TC the following will be mentioned:

- any United Nations Sustainable Development Goals (SDGs) that the New Work Item proposals will support, including the proposed rationale for the selected SDG(s), where applicable, and
- the Environmental aspects addressed, or a written explanation detailing why the selected environmental aspects do not apply to the proposed WI.

4.3.3 Objectives regarding addressing environmental issues and consideration of how to assess progress in achieving those objectives

The selected environmental aspects are addressed by one or more of the following actions:

- use of environmental checklist and guides;
- bring in environmental expertise to the WG;
- contact EHD for help/support (cen.ehd@cencenelec.eu) and/or use examples from Environmental Framework

5 Factors affecting completion and implementation of the CEN/TC work programme

The risk analysis shows that the factors negatively affecting the work of CEN/TC 249 are not specific to the plastics sector and CEN/TC 249:

- Lack of active experts who are ready to spend time on a common interest mission;
- Hesitation of (potential) stakeholders (e.g. manufacturers, converters, laboratories, academics) to invest resources in standardisation when their direct benefit is not adequately identified, in particular due to the recent crisis of which the consequences have not yet been resorbed;
- Situation in ISO/TC 61, because a major part of the work programme is based on the Vienna Agreement;
- Decreasing knowledge of the basics of standardisation processes;
- Language (e.g., accuracy of terms, clear understanding of exchanges, translation of drafts for enquiries);
- Efficiency of CEN (and ISO) central secretariat as well as EC services in procedure steps where the TC has no power;



- It takes too long before the positive impact of the Regulation on European standardisation is experienced.