

STN	Plasty Výrobky z plastov pre poľnohospodárstvo Inštalácia, používanie, odstránenie, triedenie, zber, príprava na recykláciu a návod na dizajn na recykláciu	STN EN 18109 64 6024
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Plastics - Agricultural plastic products - Installation, use, removal, sorting, collection, preparation for recycling and design for recycling guidelines

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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EUROPEAN STANDARD**EN 18109****NORME EUROPÉENNE****EUROPÄISCHE NORM**

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English Version

Plastics - Agricultural plastic products - Installation, use, removal, sorting, collection, preparation for recycling and design for recycling guidelines

Plastiques - Produits pour l'agriculture en matières plastiques - Installation, utilisation, dépose, tri, collecte, préparation au recyclage et lignes directrices pour la conception en vue du recyclage

Kunststoffe - Landwirtschaftliche Kunststoffzeugnisse - Installation, Verwendung, Abbau, Sortierung, Sammlung, Aufbereitung für das Recycling und Richtlinien für recyclinggerechte Gestaltung

This European Standard was approved by CEN on 16 June 2025.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 18109:2025) has been prepared by Technical Committee CEN/TC 249 “Plastics”, the secretariat of which is held by SIS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2026, and conflicting national standards shall be withdrawn at the latest by February 2026.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

EN 18109:2025 (E)**Introduction**

In recent years, the use of plastic products in agriculture has become a subject of concern due to its impact on the environment. To address this issue, there is a growing need for a European standard that sets guidelines in agricultural practices.

The European standardization for agricultural products aims to promote sustainable practices, reduce plastic waste, and protect the environment. It emphasizes the importance of reducing plastic waste, improving recycling and reuse methods. Also, it takes into account the entire life cycle of plastic products, from production to end of use, and encourages the adoption of practices that contribute to a circular economy, primarily recycling.

One of the key aspects is to encourage farmers and producers to opt for the implementation of collection and recycling systems specifically designed for agricultural plastic waste.

The European standardization emphasizes the importance of proper waste management and disposal. It encourages the establishment of collection points and recycling facilities for agricultural plastic waste, ensuring that it is processed and recycled in an environmentally responsible manner. Additionally, it promotes awareness and education among farmers and producers regarding the proper handling and disposal of plastic products.

Furthermore, the European standardization encourages research and innovation in the field of sustainable materials. It calls for the development of new technologies and materials that are recyclable, reusable. This includes exploring options such as bio-based materials made from renewable resources or utilizing natural materials that have minimal impact on the environment.

By implementing these guidelines, farmers and producers will contribute to a more sustainable agricultural industry that balances the need for plastic products with the preservation of our natural resources.

1 Scope

This document specifies the integrated management of agricultural plastic products with agronomic performance.

This document gives guidance and requirements for their installation, use, removal, sorting, collection and preparation for recycling as well as general guidelines for design for recycling.

NOTE 1 EN 13206:2025, EN 13207:2025, EN 13655:2025, EN 14932:2025 and EN 17098-1:2025 include a specific clause dedicated to design for recycling.

NOTE 2 Design for recycling for products not covered by a standard is detailed in this document.

This document first aims professional users and can be used also for domestic purposes.

This document is applicable to:

- covering films that comply with EN 13206:2025 or with specifications laid out by the film manufacturer/supplier, used for covering greenhouses, small tunnels or livestock buildings, as well as to direct crop covers used for semi-forcing plants and seed;
- silage films for horizontal silos that comply with EN 13207:2025 or with specifications laid out by the film manufacturer/supplier;
- sheaths for horizontal silos (forage crop and grain storage) that comply with EN 13207:2025 or with specifications laid out by the sheath manufacturer/supplier;
- stretch films for wrapping bales that comply with EN 14932:2025 or with specifications laid out by the film manufacturer/supplier;
- thermoplastic mulching films that comply with EN 13655:2025 or with specifications laid out by the film manufacturer/supplier;
- barrier films for agricultural and horticultural soil disinfection by fumigation that comply with EN 17098-1:2025;
- nets and twines for catling and horticulture that comply with the specifications laid out by EN ISO 4167 or by the manufacturer/supplier;
- flexible ducts, semi-rigid and rigid pipes and fittings for irrigation that comply with ISO 8779, EN ISO 9261, ISO 13460-1, ISO 16438, EN 14267, EN 12324-2, EN 13635, EN 13997, EN 17176-2:2019+A1:2022 or with specifications laid out by the manufacturer/supplier;
- fabrics and non-woven nets and sheets for catling and horticulture that comply with ISO 9073 series or with specifications laid out by the manufacturer/supplier.

This document does not cover construction, packaging and food-contact products.

NOTE 3 For products non-suitable for recycling in the context of this document, specific procedures apply.

EN 18109:2025 (E)**2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10244-2, *Steel wire and wire products — Non-ferrous metallic coatings on steel wire — Part 2: Zinc or zinc alloy coatings*

EN 12324-2, *Irrigation techniques — Reel machine systems — Part 2: Specifications of polyethylene tubes for reel machines*

EN 13031-1, *Greenhouses — Design and construction — Part 1: Commercial production greenhouses*

EN 13206, *Plastics — Thermoplastic covering films for use in agriculture and horticulture*

EN 13207, *Plastics — Thermoplastic silage films and tubes for use in agriculture*

EN 13635, *Irrigation techniques — Localised irrigation systems — Terminology and data to be supplied by the manufacturer*

EN 13655, *Plastics — Thermoplastic mulch films recoverable after use, for use in agriculture and horticulture*

EN 13997, *Irrigation techniques — Connection and control accessories for use in irrigation systems — Technical characteristics and testing*

EN 14267, *Irrigation techniques — Irrigation hydrants*

EN 14932, *Plastics — Thermoplastic stretch films for wrapping silage bales*

EN 15343, *Plastics — Recycled Plastics — Plastics recycling traceability and assessment of conformity and recycled content*

EN 15344, *Plastics — Recycled plastics — Characterization of Polyethylene (PE) recyclates*

EN 15345, *Plastics — Recycled plastics — Characterisation of Polypropylene (PP) recyclates*

EN 15347-1, *Plastics — Sorted plastics wastes — Part 1: General characterization*

EN 15347-2, *Plastics — Sorted plastics wastes — Part 2: Quality grades of sorted Polyethylene (PE) wastes and specific test methods*

EN 15347-3, *Plastics — Sorted plastics wastes — Part 3: Quality grades of sorted Polypropylene (PP) wastes and specific test methods*

EN 17098-1, *Plastics — Barrier films for agricultural and horticultural soil disinfection by fumigation — Part 1: Specifications for barrier films*

EN 17176-2:2019+A1:2022, *Plastics piping systems for water supply and for buried and above ground drainage, sewerage and irrigation under pressure — Oriented unplasticized poly(vinyl chloride) (PVC-O) — Part 2: Pipes*

EN 17615, *Plastics — Environmental Aspects — Vocabulary*

EN ISO 472, *Plastics — Vocabulary (ISO 472)*

EN ISO 9261, *Agricultural irrigation equipment — Emitters and emitting pipe — Specification and test methods (ISO 9261)*

ISO 8779, *Plastics piping systems — Polyethylene (PE) pipes for irrigation — Specifications*

ISO 9092, *Nonwovens — Vocabulary*

ISO 13460-1, *Agricultural irrigation equipment — Plastics saddles — Part 1: Polyethylene pressure pipes*

ISO 15270,¹ *Plastics — Guidelines for the recovery and recycling of plastics waste*

ISO 16348, *Metallic and other inorganic coatings — Definitions and conventions concerning appearance*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

¹ Under revision as a multi-part standard.