

Plastics - Thermoplastic covering films for use in agriculture and horticulture

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

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English Version

Plastics - Thermoplastic covering films for use in agriculture and horticulture

Plastiques - Films de couverture thermoplastiques pour utilisation en agriculture et horticulture

Kunststoffe - Thermoplastische Abdeckfolien für den Einsatz in der Landwirtschaft und im Gartenbau

This European Standard was approved by CEN on 14 November 2016 and includes Amendment 1 approved by CEN on 11 November 2019.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Turkey and United Kingdom.



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

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EN 13206:2017+A1:2020 (E)

Co	Contents		
Eur	European foreword4		
1	Scope	5	
2	Normative references	5	
3	Terms and definitions	6	
4	Types and use	7	
5	Material		
6	Durability		
7	Requirements		
7.1	General requirements		
7.2	Requirement for appearance		
8	Test methods	12	
8.1	Determination of thickness		
8.2	Determination of width		
8.3	Determination of tensile characteristics		
8.4	Determination of impact resistance		
8.5	Determination of elongation under a steady load (creep test)		
8.6	Determination of visible light transmission		
8.7 8.8	Determination of haze		
8.9	Determination of Reflectiveness (η_{ir}) (thermal clear and thermal diffusing limits) Determination of resistance to weathering		
	0 Determination of the chlorine content of used films		
	1 Determination of the sulfur content of used films		
	2 Determination of the roll/sheet length		
	,		
9	Film acceptance, storage and handling		
9.1 9.2	Acceptance		
	Storage and handling of rolls		
10	Designation		
11	Marking		
12	Instructions for installation, use of covering films	19	
13	Instructions for disposal and end-of-life of covering films	19	
Anı	nex A (informative) Exposure to other light sources	20	
	nex B (informative) Empirical correlation between durations of covering films expose ificial weathering and a natural exposure		
Anı	nex C (normative) Determination of the chlorine content by coulometry	27	
	nex D (normative) Determination of the sulfur content by ICP- OES technique		
	nex E (informative) Alternative method for the determination of chlorine and sulfur co		
	X-ray fluorescence		
	nex F (informative) Alternative methods for the determination of sulfur content by		
ultı	raviolet fluorescence method or by coulometry	37	

EN 13206:2017+A1:2020 (E)

Annex G (informative)	Guidance for installation, use and disposal of covering films	12
Annex H (informative)	Industrial standard formats of films	50
Bibliography		51

European foreword

This document (EN 13206:2017+A1:2020) has been prepared by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by NBN.

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 July 2020 and conflicting national standards shall be withdrawn at the latest by July 2020.

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 includes Amendment 1 approved by CEN on 11 November 2019.

This document supersedes A1 EN 13206:2017 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags 🗗 街.

The following technical changes have been made in comparison to EN 13206:2001:

- a minimum thickness of the film is fixed;
- the test methods have been updated as appropriate;
- this revision specifies also test methods for the determination of the chlorine and sulfur contents of the films subjected to use and defines guidelines for installation, use and disposal;
- the classification for the durability of the covering films is extended to a further class.

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, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the requirements related to dimensional, mechanical, optical and thermal characteristics of thermoplastic films used for covering permanent or temporary greenhouses and walking tunnels and low tunnels used for forcing and semi-forcing vegetable, fruit and flower crops.

Lay-flat perforated cover films are also in the scope of this European Standard.

It specifies a classification for the durability of covering films and the test methods referred to in this standard.

This European Standard specifies also test methods for the determination of the chlorine and sulfur contents of films subjected to use.

This European Standard is applicable to thermoplastic covering films used in agriculture and horticulture in Europe, in the thickness range 20 μ m up to more than 250 μ m, based on polyethylene and/or ethylene copolymers materials, of the following types: non-thermal films, thermal clear films and thermal diffusing films.

This European Standard also defines guidance for installation, use and disposal of covering films. It defines the conventional expected lifetime, as well as rules that allow evaluating the remaining use potential in the event of a failure before the normal end-of-use date.

NOTE These rules allow estimating the residual value of the films. These provisions only apply to the film itself and the damage it has undergone. Any other problem falls within the scope of professional practices and the general terms and conditions of sale.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 13031-1, Greenhouses - Design and construction - Part 1: Commercial production greenhouses

EN 16472, Plastics - Method for artificial accelerated photoageing using medium pressure mercury vapour lamps

EN ISO 527-1, Plastics - Determination of tensile properties - Part 1: General principles (ISO 527-1)

EN ISO 527-3, Plastics - Determination of tensile properties - Part 3: Test conditions for films and sheets (ISO 527-3)

A) EN ISO 4892-1, Plastics - Methods of exposure to laboratory light sources - Part 1: General guidance (ISO 4892-1) (A)

EN ISO 4892-2:2013, Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps (ISO 4892-2:2013)

EN ISO 4892-3:2016, Plastics - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps (ISO 4892-3)

EN ISO 7765-1:2004, Plastics film and sheeting - Determination of impact resistance by the free-falling dart method - Part 1: Staircase methods (ISO 7765-1:1988)

EN 13206:2017+A1:2020 (E)

ISO 4591, Plastics - Film and sheeting - Determination of average thickness of a sample, and average thickness and yield of a roll, by gravimetric techniques (gravimetric thickness)

ISO 4592, Plastics - Film and sheeting - Determination of length and width

ISO 4593, Plastics - Film and sheeting - Determination of thickness by mechanical scanning

ASTM D 1003-13, Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics

koniec náhľadu – text ďalej pokračuje v platenej verzii STN