Geosynthetics - Method for determining the microbiological resistance by a soil burial test

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NATIONAL FOREWORD

See Eesti standard EVS-EN 12225:2020 sisaldab Euroopa standardi EN 12225:2020 ingliskeelset teksti.	This Estonian standard EVS-EN 12225:2020 consists of the English text of the European standard EN 12225:2020.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 11.11.2020.	Date of Availability of the European standard is 11.11.2020.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 12225

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Supersedes EN 12225:2000

English Version

Geosynthetics - Method for determining the microbiological resistance by a soil burial test

Géosynthétiques - Méthode de détermination de la résistance microbiologique par un test d'enfouissement dans le sol

Geokunststoffe - Prüfverfahren zur Bestimmung der mikrobiologischen Beständigkeit durch einen Erdeingrabungsversuch

This European Standard was approved by CEN on 11 October 2020.

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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.

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

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Contents

Page

European foreword

This document (EN 12225:2020) has been prepared by Technical Committee CEN/TC 189 "Geosynthetics", 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 May 2021, and conflicting national standards shall be withdrawn at the latest by May 2021.

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 supersedes EN 12225:2000.

Compared with EN 12225:2000 the following modifications have been made:

— revision of the entire document and adaptation to the current rules of structuring and drafting;

— revision of the normative references in the entire document and Clause 2;

— references to the terminological databases of ISO and IEC included in Clause 3;

— the bibliography has been deleted.

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 document specifies a method for the determination of the microbiological resistance of geosynthetics including those of natural fibres and biodegradable polymers by a soil burial test.

NOTE Experience and exhumation of geosynthetics which had performed successfully, in some cases for more than two decades, indicate that geosynthetics made out of synthetic materials are generally resistant against microbial initiated decay. It can therefore be expected that most of these products commercially available at the present time will pass the soil burial test successfully and it is probably not necessary to submit them all to this test independent of their function. However, if the requirements for appropriate functioning of the geosynthetics demand proof of microbiological resistance or if they are manufactured from newly developed polymers whose resistance is in any doubt, the soil burial test can provide additional information.

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 12226, *Geosynthetics — General tests for evaluation following durability testing*

EN ISO 291, *Plastics — Standard atmospheres for conditioning and testing (ISO 291)*

EN ISO 11721-1:2001, *Textiles — Determination of the resistance of cellulose-containing textiles to micro-organisms — Soil burial test — Part 1: Assessment of rot-retardant finishing (ISO 11721-1:2001)*

EN ISO 13934-1, *Textiles — Tensile properties of fabrics — Part 1: Determination of maximum force and elongation at maximum force using the strip method (ISO 13934-1)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

3.1
microbiological resistance
resistance of a geotextile or geotextile-related product to attack by bacteria or fungi

Note 1 to entry: There are no limit values on evaluation criteria. Anything which exhibits statistically significant degradation in the laboratory under optimal conditions cannot be rot resistant in practice.

3.2
saturation moisture content
SMC
water content of the soil at 100 % saturation

Note 1 to entry: EN ISO 11721-1:2001 uses the term “water holding capacity” (WHC).