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GEOTEKSTIILID JA ANALOOGSE FUNKTSIOONIGA TOOTED. NÕUTAVAD OMADUSED MULLATÖÖDEL, VUNDAMENTIDE JA TUGISEINTE RAJAMISEL

Geotextiles and geotextile-related products - Characteristics required for use in earthworks, foundations and retaining structures

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

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ICS 59.080.70

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13251

October 2016

ICS 59.080.70

Supersedes EN 13251:2014+A1:2015

English Version

Geotextiles and geotextile-related products - Characteristics required for use in earthworks, foundations and retaining structures

Géotextiles et produits apparentés - Caractéristiques requises pour l'utilisation dans les travaux de terrassement, les fondations et les structures de soutènement

Geotextilien und geotextilverwandte Produkte - Geforderte Eigenschaften für die Anwendung im Erd- und Grundbau sowie in Stützbauwerken

This European Standard was approved by CEN on 4 June 2016.

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European foreword

This document (EN 13251:2016) 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of an identical text or by endorsement, at the latest by April 2017, and conflicting national standards shall be withdrawn at the latest by July 2018.

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 13251:2014+A1:2015.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Regulation No 305/2011.

For relationship with Regulation (EU) Nr. 305/2011, see informative Annex ZA, which is an integral part of this document.

Annex D provides details of significant technical changes between this European Standard and the previous editions.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

This European Standard allows manufacturers to describe geotextiles and geotextile-related products on the basis of declared values for characteristics relevant to the intended use and if tested to the specified method. It also includes procedures for the assessment and verification of constancy of performance and factory production control.

This European Standard may also be used by designers, end-users and other interested parties to define which functions and conditions of use are relevant.

The term “product” used in this standard refers to a geotextile or geotextile-related product.

This European Standard is part of a series of standards, addressing the requirements for geotextiles and geotextile-related products when used in a specific application. Annex C provides guidance on how to select the appropriate standard.

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1 Scope

This European Standard specifies the relevant characteristics of geotextiles and geotextile-related products used in the construction of earthworks, foundations and retaining structures, and the appropriate test methods to determine these characteristics.

The intended use of these geotextiles or geotextile-related products is to fulfil one or more of the following functions: filtration, separation and reinforcement. The separation function will always occur in conjunction with filtration or reinforcement, and hence will not be specified alone.

This European Standard is not applicable to geosynthetic barriers, as defined in EN ISO 10318-1.

This European Standard provides for the assessment and verification of constancy of performance of the product to this European Standard and for factory production control procedures.

Particular application cases may contain requirements regarding additional properties and – preferably standardized – test methods, if they are technically relevant.

This European Standard may be used to derive design values by taking into account factors within the context of the definitions given in EN 1997-1 (Eurocode 7), e.g. factors of safety. The design life of the product should be determined, since its function may be temporary, as a construction expediency, or permanent, for the lifetime of the structure.

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 12224, *Geotextiles and geotextile-related products - Determination of the resistance to weathering*

EN 12226, *Geosynthetics - General tests for evaluation following durability testing*

EN 12447, *Geotextiles and geotextile-related products - Screening test method for determining the resistance to hydrolysis in water*

EN ISO 1043-1, *Plastics - Symbols and abbreviated terms - Part 1: Basic polymers and their special characteristics (ISO 1043-1)*

EN ISO 3696, *Water for analytical laboratory use - Specification and test methods (ISO 3696)*

EN ISO 9862, *Geosynthetics - Sampling and preparation of test specimens (ISO 9862)*

EN ISO 10318-1, *Geosynthetics - Part 1: Terms and definitions (ISO 10318-1)*

EN ISO 10319, *Geosynthetics - Wide-width tensile test (ISO 10319)*

EN ISO 10320, *Geotextiles and geotextile-related products - Identification on site (ISO 10320)*

EN ISO 10321, *Geosynthetics - Tensile test for joints/seams by wide-width strip method (ISO 10321)*

EN ISO 10722, *Geosynthetics - Index test procedure for the evaluation of mechanical damage under repeated loading - Damage caused by granular material (ISO 10722)*

EN ISO 11058, *Geotextiles and geotextile-related products - Determination of water permeability characteristics normal to the plane, without load (ISO 11058)*

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EN ISO 12236, *Geosynthetics - Static puncture test (CBR test) (ISO 12236)*

EN ISO 12956, *Geotextiles and geotextile-related products - Determination of the characteristic opening size (ISO 12956)*

EN ISO 12957-1, *Geosynthetics - Determination of friction characteristics - Part 1: Direct shear test (ISO 12957-1)*

EN ISO 12957-2, *Geosynthetics - Determination of friction characteristics - Part 2: Inclined plane test (ISO 12957-2)*

EN ISO 13426-1, *Geotextiles and geotextile-related products - Strength of internal structural junctions - Part 1: Geocells (ISO 13426-1)*

EN ISO 13426-2, *Geotextiles and geotextile-related products - Strength of internal structural junctions - Part 2: Geocomposites (ISO 13426-2)*

EN ISO 13431, *Geotextiles and geotextile-related products - Determination of tensile creep and creep rupture behaviour (ISO 13431)*

EN ISO 13433, *Geosynthetics - Dynamic perforation test (cone drop test) (ISO 13433)*

EN ISO 13438, *Geotextiles and geotextile-related products - Screening test method for determining the resistance to oxidation (ISO 13438)*

ISO 10390, *Soil quality — Determination of pH*

ASTM D7409 — 15, *Standard Test Method for Carboxyl End Group Content of Polyethylene Terephthalate (PET) Yarns*

ASTM D4603 — 03(2011) e1, *Standard Test Method for Determining Inherent Viscosity of Poly(Ethylene Terephthalate) (PET) by Glass Capillary Viscometer*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 10318-1 and the following apply.

3.1.1
product
geotextile or geotextile-related product

3.1.2
specification
document in which the work, functions and specific conditions of use of the product are described

3.1.3
rework material
RWM
material that is generated in a process and capable of being reclaimed within the same process that generated it

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