

GEOTEKSTIILID JA ANALOOGSE FUNKTSIOONIGA
TOOTED. NÕUTAVAD OMADUSED TUNNELITE JA
ALLMAAKONSTRUKTSIOONIDE EHITAMISEL

Geotextiles and geotextile-related products -
Characteristics required for use in the construction of
tunnels and underground structures

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

**Geotextiles and geotextile-related products -
Characteristics required for use in the construction of
tunnels and underground structures**

Géotextiles et produits apparentés - Caractéristiques
requis pour l'utilisation dans la construction de
tunnels et de structures souterraines

Geotextilien und geotextilverwandte Produkte -
Geforderte Eigenschaften für die Anwendung im
Tunnelbau und in Tiefbauwerken

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

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Contents

Page

European foreword.....	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms, definitions and abbreviations	7
3.1 Terms and definitions	7
3.2 Abbreviations	8
4 Required characteristics and corresponding methods of test.....	8
4.1 General.....	8
4.2 Selection of the appropriate standard in a specific application	8
4.3 Characteristics relevant to specific conditions of use	10
4.3.1 Tensile strength of seams and joints.....	10
4.3.2 Friction characteristics	10
4.3.3 Resistance to damage during installation.....	10
4.4 Release of dangerous substances.....	10
5 Assessment and verification of constancy of performance (AVCP)	10
5.1 General.....	10
5.2 Presentation of characteristics	10
5.3 Product type determination (PTD).....	11
5.4 Factory production control (FPC)	11
5.5 Verification of values	12
5.6 Initial inspection of factory and of FPC	12
5.7 Continuous surveillance of FPC.....	13
6 Marking.....	13
Annex A (normative) Factory production control.....	14
A.1 Factory production control scheme	14
A.1.1 General.....	14
A.1.2 Product design	14
A.1.3 Production	14
A.1.4 Finished products	14
A.1.5 Provisions applicable to A.1.2, A.1.3 and A.1.4 (to be used where appropriate).....	15
A.2 Assessment of a factory production control (FPC) system.....	16
A.2.1 General.....	16
A.2.2 Checklist	16
A.2.3 Test frequency.....	20
Annex B (normative) Durability aspects	22
B.1 General.....	22

B.1.1	Service life	22
B.1.2	Initial and repeat testing of durability.....	22
B.1.3	Use of rework material.....	23
B.2	Weathering (all products)	23
B.3	Products used in non-reinforcing applications and with service lives up to 5 years	23
B.4	Other applications and service lives up to 25 years, 50 years and 100 years	24
B.4.1	General	24
B.4.2	Tests for specific materials	24
Annex C (informative)	Guidelines for the selection of the appropriate standard in a specific application	28
Annex D (informative)	Significant technical changes to superseded editions of this standard.....	30
Annex ZA (informative)	Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation.....	31
ZA.1	Scope and relevant characteristics	31
ZA.2	Procedure for AVCP of Geotextiles and geotextiles-related products for the use in the construction of tunnels and underground structures.....	32
ZA.2.1	Systems of AVCP	32
ZA.2.2	Declaration of performance (DoP)	34
ZA.3	CE marking and labelling.....	40
Bibliography	41

European foreword

This document (EN 13256:2016) 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 13256:2014+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.

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 European 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.

1 Scope

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

The intended use of these geotextiles or geotextile-related products is to protect geosynthetic barriers used in tunnels and underground structures.

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 14574, *Geosynthetics - Determination of the pyramid puncture resistance of supported geosynthetics*

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

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 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

3.1.4

post-consumer material

PCM

material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product which can no longer be used for its intended purpose

Note 1 to entry: This includes returns of material from the distribution chain.