SLOVENSKI STANDARD
kSIST FprEN 14574:2015

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Geosintetika - Ugotavljanje prebodne odpornosti podporne geosintetike proti preluknjanju s piramidnim bodalom

Geosynthetics - Determination of the pyramid puncture resistance of supported geosynthetics

Geokunststoffe - Bestimmung der Pyramidendurchdrückwiderstandes von Geokunststoffen auf harter Unterlage

Géosynthétiques - Détermination de la résistance au poinçonnement pyramidal de géosynthétiques sur support

Ta slovenski standard je istoveten z: **FprEN 14574**

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59.080.70	Geotekstilije	Geotextiles

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English Version

Geosynthetics - Determination of the pyramid puncture resistance of supported geosynthetics

Géosynthétiques - Détermination de la résistance au poinçonnement pyramidal des géosynthétiques sur support

Geokunststoffe - Bestimmung des Pyramidendurchdrückwiderstandes von Geokunststoffen auf harter Unterlage

This draft European Standard is submitted to CEN members for formal vote. It has been drawn up by the Technical Committee CEN/TC 189.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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Foreword

This document (FprEN 14574:2014) has been prepared by Technical Committee CEN/TC 189 “Geosynthetics”, the secretariat of which is held by NBN.

This document is currently submitted to the Formal Vote.

This document will supersede EN 14574:2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

Significant technical changes in comparison to the previous edition include:

— Annex A (informative) has been deleted.

1 Scope

This European Standard specifies an index test method to determine the puncture resistance of a geosynthetic on a rigid support.

This method simulates the efficiency of a geosynthetic protecting a geosynthetic barrier material or another contact surface against sharp rigid elements under short term loading.

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 485-2, *Aluminium and aluminium alloys - Sheet, strip and plate - Part 2: Mechanical properties*

EN ISO 7500-1, *Metallic materials - Verification of static uniaxial testing machines - Part 1: Tension/compression testing machines - Verification and calibration of the force-measuring system (ISO 7500-1)*

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

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

ISO 554, *Standard atmospheres for conditioning and/or testing - Specifications*

3 Terms and definitions

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

3.1
puncture load
load of the piston as it is pushed onto the test specimen at a constant rate of advance

3.2
push-through load
maximum load at perforation of the geosynthetic

4 Principle

A test specimen lies flat on an aluminium plate supported by a steel base, secured in a tensile/compression testing machine. A force is exerted on the centre of the test specimen by an inverted steel pyramid, attached to a load indicator, until perforation of the specimen occurs. The recorded push-through load is considered to be representative for the protection efficiency of the specimen.

5 Apparatus

5.1 Test configuration

A suitable testing machine with a force reading accuracy according to EN ISO 7500-1 shall be used. The press shall be able to maintain a constant test speed of the loading piston. A special piston and electric signal equipment for determining the moment of push-through are the additional pieces of test equipment needed (see Figure 1).