Geosynthetics - Determination of burst strength

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 14151:2010 sisaldab Euroopa standardi EN 14151:2010 ingliskeelset teksti.	This Estonian standard EVS-EN 14151:2010 consists of the English text of the European standard EN 14151:2010.
Standard on kinnitatud Eesti Standardikeskuse 30.09.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 30.09.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 09.06.2010.	Date of Availability of the European standard text 09.06.2010.
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English Version

Geosynthetics - Determination of burst strength

Géosynthétiques - Détermination de la résistance à l'éclatement

Geokunststoffe - Bestimmung der Berstdruckfestigkeit

This European Standard was approved by CEN on 12 May 2010.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Contents

Page

Foreword

This document (EN 14151:2010) 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of an identical text or by endorsement, at the latest by December 2010, and conflicting national standards shall be withdrawn at the latest by December 2010.

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1 Scope

This European Standard specifies a method for the determination of bi-axial properties (burst strength) of geosynthetics.

This method applies to geotextiles, geosynthetic barriers and their related products. It applies to clay geosynthetic barriers only when tested in dry conditions.

2 Normative references

The following referenced documents are indispensable for the application 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 ISO 10318:2005, *Geosynthetics — Terms and definitions (ISO 10318:2005)*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 10318:2005 apply.

4 Principle

A circular specimen, clamped around its edge, is subjected to a gradually increasing normal hydraulic stress, with a constant rate of increase of volume, until rupture occurs.

The main parameters measured during the test are the hydraulic pressure under the specimen and the deflection of the specimen.

For geotextiles, dry clay geosynthetic barriers and products with apertures, e.g. geogrids, it is necessary to use an appropriately thin, impermeable and deformable membrane (diaphragm) under the specimen. If any composite material comprises an impermeable layer it is not necessary to use a diaphragm in the tests.

5 Apparatus

5.1 General

The equipment is composed of:

— a test cell with two parts;

— a deflection measuring device;

— a pressure measuring device;

— a means of controlling flow rate

An example is shown in Figure 1.