

**Flexible sheets for waterproofing -
Bitumen, plastic and rubber sheets for
roof waterproofing - Determination of
resistance to root penetration**

Flexible sheets for waterproofing - Bitumen, plastic
and rubber sheets for roof waterproofing -
Determination of resistance to root penetration

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13948:2007 sisaldab Euroopa standardi EN 13948:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 21.08.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13948:2007 consists of the English text of the European standard EN 13948:2007.</p> <p>This document is endorsed on 21.08.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This European Standard specifies a method to determine the resistance of roof waterproofing sheets to root penetration. This European Standard relates exclusively to sheets. It is not possible to test a system comprising several different sheets. This European Standard does not contain any evaluation of the sheet to be tested in respect of its environmental requirements.</p>	<p>Scope: This European Standard specifies a method to determine the resistance of roof waterproofing sheets to root penetration. This European Standard relates exclusively to sheets. It is not possible to test a system comprising several different sheets. This European Standard does not contain any evaluation of the sheet to be tested in respect of its environmental requirements.</p>
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Võtmesõnad:

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English Version

Flexible sheets for waterproofing - Bitumen, plastic and rubber sheets for roof waterproofing - Determination of resistance to root penetration

Feuilles souples d'étanchéité - Feuilles d'étanchéité de toiture, bitumineuses, plastiques et élastomères - Détermination de la résistance à la pénétration des racines

Abdichtungsbahnen - Bitumen-, Kunststoff- und Elastomerbahnen für Dachabdichtungen - Bestimmung des Widerstandes gegen Durchwurzelung

This European Standard was approved by CEN on 23 May 2007.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

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 Management Centre has the same status as the official versions.

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Foreword

This document (EN 13948:2007) has been prepared by Technical Committee CEN/TC 254 "Flexible sheets for waterproofing", the secretariat of which is held by BSI.

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 2007, and conflicting national standards shall be withdrawn at the latest by December 2007.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This European Standard has been prepared by the Technical Committee CEN/TC 254 to determine the resistance to root penetration of flexible sheets for roof waterproofing.

This European Standard is based on a method developed by the Association FLL (Forschungsgesellschaft Landschaftsentwicklung Landschaftsbau (<http://www.f-l-l.de/english.html>), Bonn, Germany).

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1 Scope

This European Standard specifies a method to determine the resistance of roof waterproofing sheets to root penetration.

This European Standard relates exclusively to sheets. It is not possible to test a system comprising several different sheets.

This European Standard does not contain any evaluation of the sheet to be tested in respect of its environmental requirements.

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 13037, *Soil improvers and growing media — Determination of pH*

EN 13038, *Soil improvers and growing media — Determination of electrical conductivity*

EN 13651, *Soil improvers and growing media — Extraction of calcium chloride/DTPA (CAT) soluble nutrients*

3 Terms and definitions

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

3.1

root penetration

roots that have grown into and/or through the surface or joints of a sheet under test where the underground parts of the plants have actively created cavities and thus damaged the sheet

4 Principle

The protection against root penetration of a sheet is tested in containers where the sheet is under exposure to roots under specified conditions.

The test specimens of the sheet are installed in 6 test containers. The sheet shall have four wall corner joints, two base corner joints and one central T joint (see Figure 2). Additionally there shall be two control containers without sheets providing a comparison of the vitality of the plants in the test and control containers throughout the whole test period.

The containers receive a layer of growing substrate and a dense covering of vegetation. This produces a high growing pressure from the roots, emphasised by a limited amount of fertiliser and a moderate watering.

The test and control containers are exposed in a climate-controlled greenhouse, in which the parameters having an influence on the growing of the plants can be controlled.

The growing period is 2 years as this period is the minimum time necessary to obtain reliable results.