

**Flexible sheets for roofing - Bitumen  
sheets for roof waterproofing -  
Determination of flexibility at low  
temperature**

Flexible sheets for roofing - Bitumen sheets for roof  
waterproofing - Determination of flexibility at low  
temperature

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1109:2000 sisaldab Euroopa standardi EN 1109:1999 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1109:2000 consists of the English text of the European standard EN 1109:1999.</p> <p>This document is endorsed on 11.01.2000 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><b>Käsitlusala:</b></p> <p>This standard is intended for the characterisation and/or classification of bitumen sheets as manufactured or supplied before use. The test method relates exclusively to products, or to their components where appropriate, and not to waterproofing membrane systems composed of such products and installed in the works.</p>	<p><b>Scope:</b></p> <p>This standard is intended for the characterisation and/or classification of bitumen sheets as manufactured or supplied before use. The test method relates exclusively to products, or to their components where appropriate, and not to waterproofing membrane systems composed of such products and installed in the works.</p>
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ICS 91.100.50

Võtmesõnad:

**English version**

Flexible sheets for waterproofing

**Bitumen sheets for roof waterproofing**

Determination of flexibility at low temperature

Feuilles souples d'étanchéité – Feuilles  
d'étanchéité de toiture bitumineuses –  
Détermination de la souplesse à basse  
température

Abdichtungsbahnen – Bitumenbahnen  
für Dachabdichtungen – Bestimmung  
des Kaltbiegeverhaltens

This European Standard was approved by CEN on 1999-07-11.

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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**

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## Foreword

This European Standard 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 February 2000, and conflicting national standards shall be withdrawn at the latest by September 2001.

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

## Introduction

This European Standard is intended for the characterisation and/or classification of bitumen sheets as manufactured or supplied before use. The test method relates exclusively to products, or to their components where appropriate, and not to waterproofing membrane systems composed of such products and installed in the works.

This test is intended to be used in conjunction with European Standards on product specification for reinforced and unreinforced bitumen sheets for roofing.

The test for flexibility at a low temperature is intended to determine the susceptibility to cracking of the bituminous coating on a sheet when bent under specified conditions. The test result is dependent on the type of coating, on the thickness of the sheet, type and position of the reinforcement and the behaviour of the surfacing material. The use of the test results directly to compare the performance of coatings in sheets of different composition is strictly limited because of the influence of parameters which have not been quantified. Only the results from sheets with the same composition can be used to compare the performance of the coating directly.

The test primarily serves to characterise bitumen sheets. It can also be used to evaluate the change in the cold bending behaviour during artificial ageing. It is not safe to relate the test results to the actual performance to be expected at low temperatures in service.

## 1 Scope

This European standard specifies the determination of flexibility of reinforced bitumen sheets at low temperatures. Sheets without reinforcement can also be tested using this standard.

The test is carried out on the upper and lower faces of the sheet either at a predetermined temperature or successively at different temperature steps to determine the cold bending temperature which represents a limiting temperature. Therefore, the test can be used to confirm a minimum cold bending temperature for a product or to determine the specific cold bending temperature for the product e.g. to determine the change of these properties as a result of artificial ageing.

## 2 Normative references

This European Standard incorporates by dated or undated references provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

ISO 5725 : 1986 Precision of test methods - Determination of repeatability and reproducibility for a standard test method by inter-laboratory tests.