Textiles - Test methods for nonwovens - Part 7: Determination of bending length

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 9073-7:2001 sisaldab Euroopa standardi EN ISO 9073-7:1998 ingliskeelset teksti. Käesolev dokument on jõustatud 18.06.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 9073-7:2001 consists of the English text of the European standard EN ISO 9073-7:1998. This document is endorsed on 18.06.2001 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: A rectangular strip is supported on a horisontal platform with the long axis of the strip parallel to the long axis of the platform. The strip is advanced in the direction of its length so that an increasing part overhangs the platform and bends down under its own weight. When the edge has reached a plane inclined at an angle of 41,5° the overhanging length will equal twice the bending length. Flexural rigidity is calculated.	**Scope:** A rectangular strip is supported on a horisontal platform with the long axis of the strip parallel to the long axis of the platform. The strip is advanced in the direction of its length so that an increasing part overhangs the platform and bends down under its own weight. When the edge has reached a plane inclined at an angle of 41,5° the overhanging length will equal twice the bending length. Flexural rigidity is calculated.

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Võtmesõnad: bend tests, determination, fabrics, length, non-woven fabrics, tests, textiles

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Descriptors: Textiles, nonwovens, bending length, testing.

English version

Textiles

Test methods for nonwovens

Part 7: Determination of bending length
(ISO 9073-7 : 1995)

Textiles – Méthodes d'essai pour nontissés – Partie 7: Détermination de la longueur de flexion (ISO 9073-7 : 1995)

Textilien – Prüfverfahren für Vliesstoffe – Teil 7: Bestimmung der Biegelänge (ISO 9073-7 : 1995)

This European Standard was approved by CEN on 1998-07-01.

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

Foreword

International Standard

ISO 9073-7 : 1995 Textiles – Test methods for nonwovens – Part 7: Determination of bending length,

which was prepared by ISO/TC 38 'Textiles' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 248 'Textiles and textile products', the Secretariat of which is held by BSI, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by January 1999 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

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.

Endorsement notice

The text of the International Standard ISO 9073-7 : 1995 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

1 Scope

This part of ISO 9073 specifies a method for determining the bending length of a nonwoven fabric. An equation is given for calculating the flexural rigidity of the fabric from the bending length.

The method is not applicable to combination-type materials (composites or laminates) in which there can be a natural twist.

NOTE 1 This International Standard describes a test method specific to nonwovens. Other International Standards applicable to textile, paper, plastics, rubber or other materials can also be applied to test certain nonwoven characteristics.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 9073. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 9073 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 139:1973, *Textiles — Standard atmospheres for conditioning and testing.*

ISO 186:1994, *Paper and board — Sampling to determine average quality.*

ISO 9073-1:1989, *Textiles — Test methods for nonwovens — Part 1: Determination of mass per unit area.*

3 Definitions

For the purposes of this part of ISO 9073, the following definitions apply.

3.1 bending length: Length of a rectangular strip of fabric, fixed at one end and free at the other, that will bend under its own weight to an angle of 7,1°.

3.2 flexural rigidity: Ratio of small changes in bending moment per unit width of the material to corresponding small changes in curvature.

NOTE 2 Flexural rigidity can be calculated from the bending length.

4 Principle

A rectangular strip of fabric is supported on a horizontal platform with the long axis of the strip parallel to the long axis of the platform. The strip is advanced in the direction of its length so that an increasing part overhangs the platform and bends down under its own weight. The overhang is free at one end, and fixed at the other from the pressure applied by a slide on the part of the test piece still on the platform.

When the leading edge of the test piece has reached a plane passing through the edge of the platform and inclined at an angle of 41,5° below the horizontal, the overhanging length will equal twice the bending length of the test piece (see annex A), and thus the bending length can be calculated.