

**Textiles - Test methods for nonwovens - Part 18:
Determination of breaking strength and elongation
of nonwoven materials using the grab tensile test**

Textiles - Test methods for nonwovens - Part 18:
Determination of breaking strength and elongation of
nonwoven materials using the grab tensile test

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 9073-18:2008 sisaldab Euroopa standardi EN ISO 9073-18:2008 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 20.06.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 07.05.2008.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 9073-18:2008 consists of the English text of the European standard EN ISO 9073-18:2008.

This standard is ratified with the order of Estonian Centre for Standardisation dated 20.06.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 07.05.2008.

The standard is available from Estonian standardisation organisation.

ICS 59.080.30

Võtmesõnad:

Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

English Version

Textiles - Test methods for nonwovens - Part 18: Determination of breaking strength and elongation of nonwoven materials using the grab tensile test (ISO 9073-18:2007)

Textiles - Méthodes d'essai pour nontissés - Partie 18:
Détermination de la résistance à la rupture et de
l'allongement de matériaux nontissés par l'essai de traction
à l'arrachement (ISO 9073-18:2007)

Textilien - Prüfverfahren für Vliesstoffe - Teil 18:
Bestimmung der Höchstzugkraft und der
Höchstzugkraftdehnung von Vliesstoffen mit dem Grab-
Zugversuch (ISO 9073-18:2007)

This European Standard was approved by CEN on 12 April 2008.

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.

CEN members are the national standards bodies of 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.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Foreword

The text of ISO 9073-18:2007 has been prepared by Technical Committee ISO/TC 38 "Textiles" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 9073-18:2008 by Technical Committee CEN/TC 248 "Textiles and textile products" 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 November 2008, and conflicting national standards shall be withdrawn at the latest by November 2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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 the United Kingdom.

Endorsement notice

The text of ISO 9073-18:2007 has been approved by CEN as a EN ISO 9073-18:2008 without any modification.

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	2
5 Material and reagents	2
6 Apparatus	2
7 Procedure	3
8 Calculation	4
9 Test report	4
Annex A (informative) Possible reasons for low precision of grab tensile test	6

Textiles — Test methods for nonwovens —

Part 18:

Determination of breaking strength and elongation of nonwoven materials using the grab tensile test

1 Scope

This part of ISO 9073 specifies a grab tensile test procedure for determining the breaking strength and elongation of most nonwoven materials. It includes instructions for the testing of wet specimens.

This grab tensile test procedure is applicable for most nonwovens, but is not recommended for nonwovens which have a high percentage of stretch.

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.

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

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

ISO 10012:2003, *Measurement management systems — Requirements for measurement processes and measuring equipment*

3 Terms and definitions

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

3.1

grab test

tensile test in which only the centre part of the test specimen is gripped in the jaws of the testing machine

NOTE Normally, the grab tensile strength is determined using a 100 mm wide strip of material. This tensile load is applied at the midpoint of the 100 mm specimen. This is done using 25 mm wide jaw faces that are used to clamp the specimen at each end.

3.2

elongation

deformation in the direction of load caused by a tensile force

NOTE Elongation is generally expressed as a percentage, as a ratio of the length of the stretched material to the length of the unstretched material. Elongation may be determined by the degree of stretch under a specific load, or the point where the stretched material breaks.