



# SLOVENSKI STANDARD

## SIST EN 29073-1:1999

01-marec-1999

---

### Tekstilije - Metode preskušanja vlaknovin - 1. del: Ugotavljanje ploščinske mase

Textiles - Test methods for nonwovens - Part 1: Determination of mass per unit area

Textilien - Prüfverfahren für Vliesstoffe - Teil 1: Bestimmung der flächenbezogenen Masse

Textiles - Méthodes d'essai pour nontissés - Partie 1: Détermination de la masse surfacique

ITeH STANDARD PREVIEW  
(standards.iteh.ai)

Ta slovenski standard je istoveten z: **EN 29073-1:1992**

SIST EN 29073-1:1999  
<https://standards.iteh.ai/catalog/standards/sist/a74a65ad-714c-400a-8414-8e3102936884/sist-en-29073-1-1999>

---

#### **ICS:**

59.080.30      Tkanine      Textile fabrics

**SIST EN 29073-1:1999**      en

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 29073-1:1999

<https://standards.iteh.ai/catalog/standards/sist/a74a65ad-714c-400a-8414-8e3102936884/sist-en-29073-1-1999>

EUROPEAN STANDARD

EN 29073-1:1992

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 1992

UDC 677.076.4:677.017.25:620.1:531.751

Descriptors: Textiles, fabrics, nonwoven fabrics, tests, measurements, specific area

English version

**Textiles - Test methods for nonwoven - Part 1:  
Determination of mass per unit area**Textiles - Méthodes d'essai pour nontissés -  
Partie 1: Détermination de la masse surfaciqueTextilien - Prüfverfahren für Vliesstoffe -  
Teil 1: Bestimmung der flächenbezogenen Masse**ITEH STANDARD PREVIEW**  
**(standards.iteh.ai)**SIST EN 29073-1:1999<https://standards.iteh.ai/catalog/standards/sist/a74a65ad-714c-400a-8414-8e3102936884/sist-en-29073-1-1999>

This European Standard was approved by CEN on 1992-06-26. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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

Page 2  
EN 29073-1:1992

## Foreword

This European Standard has been taken over by CEN/TC 248 "Textiles and textile products" from the work of ISO/TC 38 "Textiles" of the International Organization for Standardization (ISO).

The document was submitted to CEN members to the Unique Acceptance Procedure and was approved without any modification.

National standards identical to this European Standard shall be published at the latest by 1992-12-31 and conflicting national standards shall be withdrawn at the latest by 1992-12-31.

Following the CEN/CENELEC Common Rules, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

## Endorsement notice

SIST EN 29073-1:1999

[https://standards.iteh.ai/catalog/standards/sist/a74a65ad-714c-400a-8414-](https://standards.iteh.ai/catalog/standards/sist/a74a65ad-714c-400a-8414-83103936884/sist-en-29073-1-1999)

The content of this European Standard is identical with that of the International Standard ISO 9073-1 "Textiles - Test method for nonwovens - Part 1: Determination of mass per unit area" published in 1989.

# INTERNATIONAL STANDARD

**ISO**  
**9073-1**

First edition  
1989-07-01

---

---

**Textiles — Test methods for nonwovens —**  
**Part 1 :**  
Determination of mass per unit area

**iTeh STANDARD PREVIEW**  
*Textiles — Méthodes d'essai pour nontissés —*  
*(Partie 1 : Détermination de la masse surfacique)*

SIST EN 29073-1:1999

<https://standards.iteh.ai/catalog/standards/sist/a74a65ad-714c-400a-8414-8e3102936884/sist-en-29073-1-1999>



Reference number  
ISO 9073-1 : 1989 (E)

## ISO 9073-1 : 1989 (E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 9073-1 was prepared by Technical Committee ISO/TC 38, *Textiles*.

SIST EN 29073-1:1999

ISO 9073 consists of the following parts, under the general title *Textiles – Test methods for nonwovens*:

- *Part 1: Determination of mass per unit area*
- *Part 2: Determination of thickness*
- *Part 3: Determination of tensile strength and elongation*
- *Part 4: Determination of tear resistance*

© ISO 1989

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization

Case postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

## Introduction

Although nonwovens are classified within the textile industry, it should be recognized that nonwovens technologically share characteristics not only with textile products but also with paper and/or plastic products. There is an existing international textile test, ISO 3801. However, in order to meet the specific needs of nonwovens, alternative requirements to those listed in ISO 3801 are specified in this part of ISO 9073. These are

- a) a different sampling procedure;
- b) an alternative specification for dimensions of test piece;
- c) a greater accuracy for the balance.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 29073-1:1999](https://standards.iteh.ai/catalog/standards/sist/a74a65ad-714c-400a-8414-8e3102936884/sist-en-29073-1-1999)

<https://standards.iteh.ai/catalog/standards/sist/a74a65ad-714c-400a-8414-8e3102936884/sist-en-29073-1-1999>

**iTeh STANDARD PREVIEW**  
This page intentionally left blank  
**(standards.iteh.ai)**

SIST EN 29073-1:1999

<https://standards.iteh.ai/catalog/standards/sist/a74a65ad-714c-400a-8414-8e3102936884/sist-en-29073-1-1999>



# Textiles — Test methods for nonwovens —

## Part 1 : Determination of mass per unit area

### 1 Scope

This part of ISO 9073 specifies a method for the determination of mass per unit area of nonwovens.

### 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 listed 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 : 1985, *Paper and board — Sampling to determine average quality*.

ISO 3801 : 1977, *Textiles — Woven fabrics — Determination of mass per unit length and mass per unit area*.

### 3 Principle

Measurement of the area and mass of a test piece and calculation of its mass per unit area in grams per square metre.

### 4 Apparatus

**4.1 Apparatus for cutting the test pieces**, chosen from among the following.

**4.1.1 Die**, which cuts a test piece of an area of at least 50 000 mm<sup>2</sup>.

**4.1.2 Template**, with an area of at least 50 000 mm<sup>2</sup> (e.g. 250 mm × 200 mm) and a **razor blade**.

**4.1.3 Steel rule**, accurately graduated in millimetres, and a **razor blade**.

**4.2 Balance**, capable of determining the mass of a test piece to an accuracy of ± 0,1 % of the determined mass.

### 5 Sampling

Carry out sampling in accordance with ISO 186.

#### NOTES

1 The optimum sample size will vary with different nonwovens and should be agreed between purchaser and vendor. The size should preferably not be smaller than the size specified in 4.1 due to anisotropy of various nonwovens.

2 Attention is drawn to the fact that with nonwovens, sampling error may be greater than the testing error.

3 This method of sampling recognizes and makes provisions for "anisotropy" (differences in properties along various directions, principally machine and cross direction) in the final specimens. However, these specimens are random representatives of the material and in some cases it may be desirable to investigate systematic variations of properties (including anisotropy), for example across the width, or in certain positions along the length of a given reel. In all such cases, special provisions should be agreed between purchaser and vendor and recorded in the test report. A procedure for more detailed examination of variability within a given batch of material is available in TAPPI T 11-05-74 and may be found helpful. This publication may be obtained from: The Technical Association of Pulp and Paper Industries, 1 Dunwoody Park, Atlanta, Georgia 30338, USA.