



**International
Standard**

ISO 9073-11

Nonwovens — Test methods —

**Part 11:
Run-off**

*Nontissés — Méthodes d'essai —
Partie 11: Écoulement sur plan incliné*

**Second edition
2026-01**

**Corrected version
2026-08**

Sample Document

get full document from standards.iteh.ai

Sample Document

get full document from standards.iteh.ai



COPYRIGHT PROTECTED DOCUMENT

© ISO 2026

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Conditioning	2
5 Sampling	2
5.1 Lot size.....	2
5.2 Sampling.....	2
5.3 Laboratory samples.....	3
5.4 Laboratory test specimens.....	3
6 Three options of the method	3
Annex A (normative) Option A — Basic method for testing hydrophilic nonwovens	4
Annex B (normative) Option B — The repeated test	10
Annex C (normative) Option C — Modified method for testing hydrophobic nonwovens	13
Annex D (informative) Alternative ways of executing the run-off	14
Bibliography	15

Sample Document

get full document from standards.iteh.ai

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 38, *Textiles*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 248, *Textiles and textile products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 9073-11:2002), which has been technically revised.

The main changes are as follows:

- the title has been changed from "Textiles — Test methods for nonwovens — Part 11: Run-off" to "Nonwovens — Test methods — Part 11: Run-off";
- In the scope, Test I to Test III have been changed to Option A to Option C;
- In the scope, the text [For the research and development (R&D) purposes, other characteristics could be measured according to [Annex D](#)] has been added;
- [Clause 4](#), Conditioning, and [Clause 5](#), Sampling, have been introduced in this document;
- former Clause 4 (Test I), Clause 5 (Test II) and Clause 6 (Test III), have been moved to [Annex A](#), [Annex B](#) and [Annex C](#), respectively;
- the content of former Annex A have been moved to a new [Annex D](#).

A list of all parts in the ISO 9073 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

This corrected version of ISO 9073-11:2026 incorporates the following corrections:

- the tolerance in [A.4.3](#) has been corrected [i.e. (25 ± 0,5) g]

Nonwovens — Test methods —

Part 11: Run-off

SAFETY WARNING — This document does not claim to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this document to determine appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. It is expected that the person performing this test has been fully trained in all aspects of this procedure.

1 Scope

This document specifies test methods to measure the amount of test liquid (simulated urine) which runs down a nonwoven test specimen when a specified mass of test liquid is poured on the nonwoven test specimen superimposed on a standard absorbent medium and placed on an inclined plane.

This document is designed to compare run-off of nonwovens. It is not intended to simulate in use conditions for finished products.

The three methods are:

- a) Option A - basic method for testing hydrophilic nonwovens, see [Annex A](#).
- b) Option B - repeated test, with the same test parameters as the basic method with additional information in Option A, see [Annex B](#).
- c) Option C - modified method for testing hydrophobic nonwovens specifying another degree of incline, see [Annex C](#).

The test method is designed to measure the repellency of hydrophobic nonwovens. At the standard inclination angle, Option A isn't able to distinguish between different levels of hydrophobicity. By decreasing the inclination of the table, one can assess the difference in repellence of hydrophobic nonwovens.

For R&D purposes, other characteristics can be measured according to [Annex D](#).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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*

NWSP 010.1, *Three Standard Test Methods for Nonwoven Absorption*

NWSP 005.0, *Nonwoven Sampling*

NWSP 70.3, *Nonwoven Coverstock Liquid Strike-Through Time Using Simulated Urine*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1
percent run-off

W_{RO}
percent mass fraction of the original mass of liquid which runs from the test specimen

3.2
run-off

m_{RO}
mass of excess liquid in gram that runs from the test specimen

3.3
sample

product or portion of a product taken from a production lot, identifiable and traceable back to the origin

3.4
simulated urine

testing liquid consisting of a 9 g/l solution of sodium chloride in demineralized water with a surface tension of (70 ± 2) mN/m

3.5
test specimen

specific portion of the identified sample upon which a test is performed

Note 1 to entry: [5.2](#) specifies the number of test specimens needed.

4 Conditioning

Bring samples to moisture equilibrium in the standard atmosphere for testing nonwovens as directed in ISO 139. Equilibrium is considered to have been reached when the increase in mass of the test specimen in successive weighing made at intervals of not less than 2 hours does not exceed 0,25 % of the mass of the test specimen.

NOTE While conditioning for a fixed time cannot be accepted in cases of dispute, it can be sufficient in routine testing to expose the material to the standard atmosphere for testing nonwovens for a reasonable period of time before the test specimens are tested, i.e. 4 hours.

5 Sampling

5.1 Lot size

A lot should be established based on a logical break in the process or as prescribed by a regulation or traceability requirements.

Test specimens shall be selected in accordance with NWSP 005.0, if applicable.

5.2 Sampling

If provided in the customer specification, take random sample as directed. If no requirements are provided, ISO 2859-1 (Sampling procedures for inspection by attributes) or ISO 3951-1 (Sampling procedures for inspection by variables) can be used. In and of themselves, these are not valid sampling plans by default. An agreement between the purchaser and supplier requires taking into account process stability, producer's risk, consumer's risk, acceptable quality level and also the cost needs to be established.

In general, if the test characteristic can be considered normally distributed, the sampling procedures for inspection by variables will require fewer samples. However, small samples may not reflect that normal distribution and the estimated percent defective can therefore be over or under estimated. In this case, as well as for attribute data, the sampling procedures for inspection by attributes should be used.

In the absence of any sampling size requirement, [Table 1](#) and [Table 2](#) below can be used. Switching rules are required to maintain the acceptance quality limit (AQL) protection.

Table 1 — Attributes (1.0 AQL, General Inspection Level II)

Number of units in the lot inclusive	Number of units that comprise the lot sample
1 to 150	13
151 to 280	32
281 to 500	50
501 to 1 200	80

Table 2 — Variables (“s” method, General Inspection Level II)

Number of units in the lot inclusive	Number of units that comprise the lot sample
1 to 15	3
16 to 25	4
26 to 50	6
51 to 90	9
91 to 150	13
151 to 280	18
281 to 500	25
501 to 1 200	35

An adequate specification or other agreement between the purchaser and supplier requires taking into account the variability between rolls of nonwoven fabric and between test specimens from a swatch from a roll of material to provide a sampling plan with meaningful producer’s risk, consumer’s risk, acceptable quality level, and limiting quality level.

Care in handling the materials shall be observed so that the final cut test specimens have not contacted any contaminants such as soap, salt, oil etc., which might facilitate or hinder absorbency. No dirt or other foreign material should be allowed on the test specimen; also, do not write on the test area of the test specimen.

5.3 Laboratory samples

From each roll or test specimen of fabric selected from the lot sample, cut at least one laboratory sample the full width of the fabric and at least 300 mm from each outside edge.

5.4 Laboratory test specimens

Cut test specimens of the nonwoven, (140 ± 2) mm $\times$ (280 ± 2) mm, with the longest side in machine direction (MD).

All three testing modifications use the same size test specimen. From [Clause 6](#) onwards, please continue from the respective test to be executed:

6 Three options of the method

- Option A: The basic method for testing hydrophilic nonwovens shall be in accordance with [Annex A](#);
- Option B: The repeated test shall be in accordance with [Annex B](#);
- Option C: Modified method for testing hydrophobic nonwovens shall be in accordance with [Annex C](#).