



NSAI
Standards

Irish Standard
I.S. EN ISO 13427:2014

Geosynthetics - Abrasion damage simulation (sliding block test) (ISO 13427:2014)

I.S. EN ISO 13427:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN ISO 13427:2014

Published:

2014-12-17

This document was published under the authority of the NSAI and comes into effect on:

2015-01-19

ICS number:

59.080.70

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

EUROPEAN STANDARD

EN ISO 13427

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2014

ICS 59.080.70

Supersedes EN ISO 13427:1998

English Version

Geosynthetics - Abrasion damage simulation (sliding block test) (ISO 13427:2014)

Géosynthétiques - Simulation de l'endommagement par
abrasion (essai du bloc glissant) (ISO 13427:2014)

Geokunststoffe - Simulation von Scheuerbeschädigungen
(Gleitblockprüfung) (ISO 13427:2014)

This European Standard was approved by CEN on 13 September 2014.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN ISO 13427:2014 (E)

Contents

Page

Foreword.....3

Foreword

This document (EN ISO 13427:2014) has been prepared by Technical Committee ISO/TC 221 "Geosynthetics" in collaboration with Technical Committee CEN/TC 189 "Geosynthetics" the secretariat of which is held by NBN.

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 June 2015, and conflicting national standards shall be withdrawn at the latest by June 2015.

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.

This document supersedes EN ISO 13427:1998.

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 13427:2014 has been approved by CEN as EN ISO 13427:2014 without any modification.

This page is intentionally left blank

INTERNATIONAL STANDARD

**ISO
13427**

Second edition
2014-12-15

Geosynthetics — Abrasion damage simulation (sliding block test)

*Géosynthétiques — Simulation de l'endommagement par abrasion
(essai du bloc glissant)*



Reference number
ISO 13427:2014(E)

© ISO 2014

ISO 13427:2014(E)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2014

All rights reserved. Unless otherwise specified, 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
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
5 Apparatus	1
5.1 Abrasion tester	1
6 Test specimens	2
7 Conditioning	2
8 Procedure	2
9 Calculation and expression of results	3
10 Test report	3

ISO 13427:2014(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.

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 documents 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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword — Supplementary information](#).

The committee responsible for this document is ISO/TC 221, *Geosynthetics*.

This second edition cancels and replaces the first edition (ISO 13427:1998), which has been technically revised.

Geosynthetics — Abrasion damage simulation (sliding block test)

1 Scope

This International Standard specifies a test method used for the determination of the resistance of geosynthetics to abrasion using a sliding block, whereby after abrasion the loss in tensile properties is determined.

This test method is applicable to all geosynthetics used in the construction of railways.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 554, *Standard atmospheres for conditioning and/or testing — Specifications*

ISO 6344-2, *Coated abrasives — Grain size analysis — Part 2: Determination of grain size distribution of macrogrits P12 to P220*

EN 12226, *Geosynthetics — General tests for evaluation following durability testing*

3 Terms and definitions

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

3.1

abrasion

wearing away of any part of a material by rubbing against another surface

4 Principle

A test specimen, mounted on a fixed platform, is rubbed by an abradant with specified surface characteristics. Under controlled conditions of pressure and abrasive action, the abradant is moved along on a horizontal axis with a uniaxial motion. Resistance to abrasion is expressed as the percentage retained tensile strength of the test specimen.

5 Apparatus

5.1 Abrasion tester

The abrasion tester (see [Figure 1](#)) shall consist of the following essential parts:

a) **Balanced head and block assembly**

The assembly shall consist of two parallel, smooth plates, 50 mm × 200 mm, one of which moves with a reciprocating motion. The frequency of the reciprocating plate shall be adjustable to a maximum of 90 double strokes per min. The stroke length shall be 25 ± 1 mm. The second plate is rigidly supported by a double-lever assembly to provide free movement in a direction perpendicular to

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-