

# ILNAS

Institut luxembourgeois de la normalisation  
de l'accréditation, de la sécurité et qualité  
des produits et services

## ILNAS-EN ISO 12951:2020

### **Textile floor coverings - Determination of mass loss, fibre bind and stair nosing appearance change using the Lisson Tretrad machine (ISO**

Revêtements de sol textiles -  
Détermination de la perte de masse, de la  
sensibilité au défibrage et du  
changement d'aspect au nez de marche à

Textile Bodenbeläge - Bestimmung des  
Masseverlusts, der Fasereinbindung und  
der Änderung des Aussehens textiler  
Bodenbeläge an Treppenkanten mittels

06/2020

A decorative graphic in the bottom right corner featuring several interlocking gears in shades of blue and yellow. Overlaid on the gears is a vertical column of binary code (0s and 1s) and various mathematical symbols like plus, minus, and multiplication signs.

## National Foreword

This European Standard EN ISO 12951:2020 was adopted as Luxembourgish Standard ILNAS-EN ISO 12951:2020.

Every interested party, which is member of an organization based in Luxembourg, can participate for FREE in the development of Luxembourgish (ILNAS), European (CEN, CENELEC) and International (ISO, IEC) standards:

- Participate in the design of standards
- Foresee future developments
- Participate in technical committee meetings

<https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation.html>

### **THIS PUBLICATION IS COPYRIGHT PROTECTED**

Nothing from this publication may be reproduced or utilized in any form or by any mean - electronic, mechanical, photocopying or any other data carries without prior permission!

ILNAS-EN ISO 12951:2020

EUROPEAN STANDARD **EN ISO 12951**

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2020

ICS 97.150

Supersedes EN ISO 12951:2015

English Version

**Textile floor coverings - Determination of mass loss, fibre  
bind and stair nosing appearance change using the Lisson  
Tretrad machine (ISO 12951:2020)**

Revêtements de sol textiles - Détermination de la perte  
de masse, de la sensibilité au défilage et du  
changement d'aspect au nez de marche à l'aide la  
machine Lisson Tretrad (ISO 12951:2020)

Textile Bodenbeläge - Bestimmung des Masseverlustes,  
der Fasereinbindung und der Treppenkantenprüfung  
mittels Lisson-Tretradgerät (ISO 12951:2020)

This European Standard was approved by CEN on 14 May 2020.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, 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: Rue de la Science 23, B-1040 Brussels**

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

## European foreword

This document (EN ISO 12951:2020) has been prepared by Technical Committee ISO/TC 219 "Floor coverings" in collaboration with Technical Committee CEN/TC 134 "Resilient, textile and laminate floor coverings" 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 December 2020, and conflicting national standards shall be withdrawn at the latest by December 2020.

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

This document supersedes EN ISO 12951:2015.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Endorsement notice

The text of ISO 12951:2020 has been approved by CEN as EN ISO 12951:2020 without any modification.

---

---

**Textile floor coverings —  
Determination of mass loss, fibre bind  
and stair nosing appearance change  
using the Lisson Tretrad machine**

*Revêtements de sol textiles — Détermination de la perte de masse,  
de la sensibilité au défibrage et du changement d'aspect au nez de  
marche à l'aide la machine Lisson Tretrad*



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2020

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  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Principle</b> .....	<b>2</b>
<b>5 Apparatus</b> .....	<b>2</b>
5.1 Lisson Tretrad machine.....	2
5.1.1 General.....	2
5.1.2 Bed plate.....	3
5.1.3 Tretrad assemblies.....	3
5.1.4 Vacuum cleaning system.....	3
<b>6 Sampling and selection of test specimens</b> .....	<b>5</b>
<b>7 Atmosphere for conditioning and testing</b> .....	<b>5</b>
<b>8 Calibration</b> .....	<b>6</b>
8.1 Choice of the calibration carpet.....	6
8.1.1 Method 1.....	6
8.1.2 Method 2.....	6
8.2 Calibration of the apparatus.....	6
<b>9 Procedure</b> .....	<b>7</b>
9.1 General.....	7
9.2 Test A — Determination of mass loss of textile floor coverings.....	7
9.3 Test B — Determination of stair nosing: appearance change of textile floor coverings.....	8
9.4 Test C — Determination of fibre bind on synthetic loop pile carpets.....	8
9.5 Test D — Determination of fibre bind (hairiness) on needled floorcoverings and floor coverings without pile.....	9
<b>10 Calculation and expression of results</b> .....	<b>9</b>
10.1 Test A.....	9
10.2 Test B.....	10
10.3 Test C.....	10
10.4 Test D.....	10
10.5 Unusual phenomena.....	11
<b>11 Test report</b> .....	<b>11</b>
<b>Annex A (informative) Examples of failure at 400 cycles</b> .....	<b>12</b>