SLOVENSKI STANDARD
oSIST prEN ISO 20932-2:2019

01-julij-2019

Tekstilije - Ugotavljanje elastičnosti tkanin - 2. del: Večosni preskusi (ISO 20932-2:2018)

Textiles - Determination of the elasticity of fabrics - Part 2: Multiaxial tests (ISO 20932-2:2018)

Textiles - Détermination de l'élasticité des étoffes - Partie 2: Essais multiaxiaux (ISO 20932-2:2018)

Ta slovenski standard je istoveten z: **prEN ISO 20932-2**

ICS:

59.080.01 Tekstilije na splošno Textiles in general

oSIST prEN ISO 20932-2:2019 **en**

INTERNATIONAL STANDARD

ISO 20932-2

First edition
2018-11

Textiles — Determination of the elasticity of fabrics —

Part 2:
Multiaxial tests

Textiles — Détermination de l'élasticité des étoffes —

Partie 2: Essais multiaxiaux

Reference number
ISO 20932-2:2018(E)

COPYRIGHT PROTECTED DOCUMENT

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
Website: www.iso.org

Published in Switzerland

Contents

Page

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 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 24, *Conditioning atmospheres and physical tests for textile fabrics*.

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.

A list of all parts in the ISO 20932 series can be found on the ISO website.

Introduction

This document was developed as a result of technical advancements in yarn and fabric structures and properties, which increase product range and developments.

This document is based on EN 14704-2[1].

Textiles — Determination of the elasticity of fabrics —

Part 2:
Multiaxial tests

1 Scope

This document specifies the test methods which can be used to measure elasticity and related properties of fabrics when they undergo a deformation of their surface. Two methods are specified: a dynamic method (method A) and a static method (method B). This document does not apply to narrow fabrics.

The results obtained cannot be compared. The choice of test method are agreed between parties and indicated in the test report.

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*

ISO 7500-1, *Metallic materials — Calibration and verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Calibration and verification of the force-measuring system*

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

ISO 20932-1, *Textiles — Determination of the elasticity of fabrics — Part 1: Strip tests*

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
narrow fabric
woven or knitted construction intended for use as a trim, binding, edging, strapping or harness, and designed to be used in its full width

[SOURCE: ISO 20932-1:2018, 3.1]

3.2
elasticity
<material> ability to recover original size and shape immediately after the removal of the force causing deformation

[SOURCE: ISO 20932-1:2018, 3.2]

3.3
constant-rate-of-extension testing machine
CRE testing machine
tensile testing machine provided with one clamp, which is stationary and another clamp, which moves with a constant speed throughout the test, the entire testing system being virtually free from deflection

[SOURCE: ISO 20932-1:2018, 3.3]

3.4
bagging
residual deformation (3.6) between the original state and the state of the surface when it has undergone a multidirectional force, which by repetition creates a “bag”

Note 1 to entry: Bagging is expressed in units of the length.

3.5
maximum deformation
deformation developed when a specified force is applied to the surface of the test specimen compared to the original state of a test specimen

Note 1 to entry: Maximum deformation is expressed in units of the length.

3.6
residual deformation
deformation after the removal of the hemispherical probe and an agreed recovery time

Note 1 to entry: Residual deformation is expressed in units of the length.

3.7
maximum force
force at the position when a test specimen is taken to a fixed distension

Note 1 to entry: Maximum force is expressed in newtons.

3.8
modulus
force measured at a given distension on either the load or unload curves

3.9
cycle
process whereby a fabric is taken from the original position to a fixed load or fixed distension and returned to the original position

4 Principle

A fabric test specimen of specified dimensions is distended at a constant rate to either a specified force or distension for an agreed number of cycles, and its elasticity determined by measuring certain characteristics.

5 Sampling

Fabric samples shall be selected in accordance with the product specification. In the absence of a product specification for the fabric, the sampling method given in Annex B may be used.

6 Atmosphere for conditioning and testing

The atmospheres for preconditioning, conditioning and testing shall be as specified in ISO 139.

