Woven fabrics - Distortion - Determination of skew and bow (ISO 13015:2013)

This document is a preview generated by EVS

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 13015:2013 sisaldab Euroopa standardi EN ISO 13015:2013 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 13015:2013 consists of the English text of the European standard EN ISO 13015:2013.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 07.08.2013.	Date of Availability of the European standard is 07.08.2013.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

This document is a preview generated by EVS

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 59.080.30

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Aru 10, 10317 Tallinn, Eesti; www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:
Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 13015

August 2013

ICS 59.080.30

English Version

Woven fabrics - Distortion - Determination of skew and bow (ISO 13015:2013)

Étoffes tissées - Déformation - Détermination de l'écart angulaire et du cintrage (ISO 13015:2013)

Gewebe - Verzerrung - Bestimmung des Schräg- und Bogenverzugs (ISO 13015:2013)

This European Standard was approved by CEN on 19 July 2013.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2013 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN ISO 13015:2013: E

This document is a preview generated by EVS

Foreword

This document (EN ISO 13015:2013) has been prepared by Technical Committee ISO/TC 38 "Textiles" in collaboration with Technical Committee CEN/TC 248 “Textiles and textile products” the secretariat of which is held by BSI.

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 February 2014, and conflicting national standards shall be withdrawn at the latest by February 2014.

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.

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 13015:2013 has been approved by CEN as EN ISO 13015:2013 without any modification.

This document is a preview generated by EVS

Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Principle **1**
5 Apparatus **1**
6 Conditioning and testing atmosphere **2**
7 Test specimens **2**
8 Procedure **2**
8.1 General 2
8.2 Preparation by marking 2
8.3 Preparation by fraying 2
8.4 Determination of the overall skew and local skew 2
9 Calculation and expression of the results **6**
9.1 Calculation for the overall skew 6
9.2 Calculation with two triangles for local skew 6
9.3 Calculation with three triangles for local skew 7
10 Test report **7**
Annex A (normative) **Weft bow and warp bow determination** **8**
Bibliography **10**

This document is a preview generated by EVS

© ISO 2013 – All rights reserved

Introduction

Textile and clothing manufacturers give a lot of importance to knowledge of the widthway distortion. In the case of woven fabrics with patterns or in which the weft threads are rather visible, the appearance of a textile article could be compromised.

With some rare exceptions, the two sets of threads in woven textile fabrics are intended to lie straight and at right angles. If a fabric does not meet either of these requirements, it is described as distorted. Difficulties in making up may then arise and the made-up article may fail to function properly. The distortion may also detract from the appearance of fabric with checked patterns or coloured weft effects such as plaids or stripes. It is therefore desirable to have a means of specifying and measuring the distortion in woven fabric in terms of bow and skew.

This document is a preview generated by EVS

© ISO 2013 – All rights reserved

Woven fabrics — Distortion — Determination of skew and bow

This document is a preview generated by EVS

1 Scope

This International Standard specifies a method for the determination of the distortion of a woven fabric in which the weft yarns are, in principle, perpendicular to the warp yarns.

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 139, *Textiles — Standard atmospheres for conditioning and testing*

3 Terms and definitions

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

3.1
bow
curvature of the warp or weft of fabrics

3.2
skew
fabric condition where the picks, although straight, are not at right angles to the ends

4 Principle

In a piece of the woven fabric, laid on a flat surface and without tension, skew and bow are characterized as follows.

Overall skew is based on the determination of the distance between one end of a weft yarn and the point on the same edge intersected by a normal perpendicular from the other end of the weft yarn to the fabric edge, in proportion to the distance between two points at which the normal perpendicular to the fabric edge intersects both edges (woven fabric width), expressed as a percentage ratio.

Local skew is determined as the distance between one end of a weft yarn to its perpendiculars to the warp running at right angles to a portion of the fabric length.

Weft bow is determined (see Annex A) as the total perpendicular distance by which a weft yarn deviates from a straight line joining both ends of the weft yarn.

Warp bow is determined (see Annex A) as the greatest perpendicular distance between the edge of the fabric and a straight line joining two selected points on the edge.

NOTE Any special treatment of the laboratory sample, i.e. washing or cleaning, could be as agreed upon between the interested parties and be described in the test report (see Bibliography for examples of standardized methods).

5 Apparatus

5.1 **Set square**, or similar device with at least two sides at right angles, graduated in millimetres.

© ISO 2013 – All rights reserved