



**RWANDA
STANDARD**

**DRS
314**

Second edition

2021-mm-dd

Textiles — Tolerance requirements

ICS 49.025.60

Reference number

DRS 314: 2021

© RSB 2021

In order to match with technological development and to keep continuous progress in industries, standards are subject to periodic review. Users shall ascertain that they are in possession of the latest edition

© RSB 2021

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without prior written permission from RSB.

Requests for permission to reproduce this document should be addressed to:

Rwanda Standards Board

P.O Box 7099 Kigali-Rwanda

KK 15 Rd, 49

Tel. +250 788303492

Toll Free: 3250

E-mail: info@rsb.gov.rw

Website: www.rsb.gov.rw

ePortal: www.portal.rsb.gov.rw

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
4 Permissible tolerances	2

Copy for public comments

Foreword

Rwanda Standards are prepared by Technical Committees and approved by Rwanda Standards Board (RSB) Board of Directors in accordance with the procedures of RSB, in compliance with Annex 3 of the WTO/TBT agreement on the preparation, adoption and application of standards.

The main task of technical committees is to prepare national standards. Final Draft Rwanda Standards adopted by Technical committees are ratified by members of RSB Board of Directors for publication and gazettment as Rwanda Standards.

DRS 314 was prepared by Technical Committee RSB/TC 029, *Textile and leather technology*.

In the preparation of this standard, reference was made to the following standard (s):

SANS 977: 2003 Textile Tolerances

The assistance derived from the above source is hereby acknowledged with thanks.

Committee membership

The following organizations were represented on the Technical Committee on *Textile and leather technology* (RSB/TC 029) in the preparation of this standard.

Ministry of Trade and Industry (MINICOM)

University of Rwanda-College of Science and Technology (UR-CST)

National Agricultural Export Development Board (NAEB)

Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA)

HeWorks Silk Rwanda Ltd

Dokmai Rwanda Ltd

GBF Leather and Art promoters Ltd

UTEXRWA Ltd

LIXIL/SATO

Rene Pharmacy

ABAHIZI RWANDA Ltd

Rwanda Standards Board (RSB) – Secretariat

Copy for public comments

Textiles — Tolerance requirements

1 Scope

This Rwanda Standard specifies tolerances for the following textiles:

- a) cotton hosiery yarn, combed and carded;
- b) cotton interlock piece goods;
- c) cotton sewing thread;
- d) footwear laces;
- e) hand-knitting yarns (worsted);
- f) hessian cloth;
- g) loomstate cotton duck;
- h) made-up articles (of woven cotton and similar piece goods);
- i) manila, sisal, coir, and cotton ropes;
- j) man-made fibre ropes;
- k) men's half hose and three-quarter hose;
- l) narrow fabrics (elastic and non-elastic);
- m) polypropylene tape (on bobbins);
- n) surgical dressings;
- o) tarpaulins;
- p) warp-knitted piece goods;
- q) woven blankets (wool, wool blends and acrylic);
- r) woven cotton and similar piece goods (e.g. polyester-and-cotton blends and polyester-and- rayon blends);

- s) woven elastomeric fabrics;
- t) woven polypropylene tape fabrics;
- u) woven worsted piece goods, and similar piece goods (e.g. wool-and-polyester blends;
- v) woven woolen piece goods); and
- w) yarns and twines.

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 8159, *Textiles -- Morphology of fibres and yarns – Vocabulary*.

3 Terms and definitions

For the purposes of this standard, the terms and definitions given in ISO 8159 and the following apply.

3.1

lot

as defined in the relevant standard for the textile product

3.2

tolerance

maximum or minimum extent to which a property is allowed to vary from a specified value when that property is determined in accordance with a specific method

4 Permissible tolerances

4.1 The permissible tolerances are as given in Table 1 to Table 23, as relevant.

4.2 All tolerances given in this standard apply to properties assessed by tests carried out after conditioning of specimens in a standard atmosphere.

Table 1 — Woven cotton and similar piece goods (e.g. polyester-and-cotton blends and polyester-and-rayon blends)

Property		Tolerance, %	
		Average property of a lot	Property of individual piece in a lot
width		+4	-1.2,+4
Piece length		No minus tolerance on stated value ^a	-1.0 (of stated value) ^a
Number of threads			
Per cm ² (warp and weft combined)		-5.0	Not applicable
Per cm			
	Warp	Not applicable	-5.0,+10
	weft	Not applicable	-5.0,+10
Mass, m ² (free from non fibrous material)		-2.5,+7.5	-5,+10
Breaking strength			
	Warp	-5.0 (-10) ^b	-10 (-18) ^b
	weft	-5.0 (-10) ^b	-5 ^c (-18) ^b
Filling content		+1	+2.5
Dimensional changes on laundering			
a) fabrics of mass less than 200 g/m ²			
	warp	±0.5 ^d	±0.5 ^d
	weft	±0.5 ^d	±0.5 ^d
b) fabrics of mass 200g/m ² or more			
	warp	±0.5 ^d	+1 (of specified value) ^d
	weft	±0.5 ^d	+1 (of specified value) ^d
^a i.e. marked on the pieces ^b applicable only to fabrics only for which a resin finish has been specified by the purchaser ^c Except that in the case of raised fabrics, the tolerance shall be -10 % ^d Instrumental reading tolerance			

Table 2 — Cotton interlock piece goods

Property	Tolerance, %	
	Average property of a lot	Property of individual piece in a lot
Mass, m ²	±5	±8
Width	±2.5	±5

Table 3 — Warp-knitted piece goods

Property	Tolerance, %	
	Average property of a lot	Property of individual piece in a lot
Mass, m ²	±5	±5
Width	±2.5	-1.5;+4
Piece length	No minus tolerance on stated value ^a	-2 (of stated value) ^a
^a i.e marked on the pieces		

Table 4 — Cotton hosiery yarn, combed and carded

Property	Tolerance on average property of individual piece in a lot, %
Linear density	±5
Skein breaking strength	-10
Twist factor	+10
unevenness	+10

Table 5 — Cotton sewing thread

Property	Tolerance, %	
	Average property of a lot	Property of individual piece in a lot
Length	-2 (of stated value) ^a	-4 (of stated value) a
Linear density	±4	±6
Breaking strength	No minus tolerance on stated value	-5
Final folding twist	±5	-
^a i.e marked on the pieces		

Table 6 — Hand-knitting yarns (worsted)

Property	Tolerance on average property of individual pieces in a lot,%
Linear density	±5
Twist factor	±10 ^a
Wool content of blended yarn	±3 ^b
^a of specified range ^b of value marked on the packages	

Table 7 — Yarns and twines

Property	Tolerance on average Property of a lot %		
	Unfinished yarns and twines	Polished twines	
Linear density			
	Jute	±10	±5
	Flex, hemp, sisal	±5	±5

Table 8 — Man-made fibre ropes

Property	Tolerance, %	
	Average property of a lot	Property of individual piece in a lot
Linear density	±3.5	±5
circumference	-	±4

Table 9 — Manilla, sisal, coir, and cotton ropes

property	Tolerance on average property in a lot		Tolerance on property of individual coils or rolls in a lot		
	Manila, sisal, or cotton ropes	Coir ropes	Manila, sisal, or cotton ropes	Coir ropes	
Linear density, %	±3.5	±7	±5	±10	
Circumference, mm					
	Less than 50	-	-	+1.5	+6
	50 and over, but less than 75	-	-	+3	+10
	75 and over, but less than 100	-	-	+5	+13
	100 and over, but less than 150	-	-	+6	+19
	150 and over, but less than 175	-	-	+10	+22
	175 and over, but less than 200	-	-	+13	+25
	200 and over, but less than 250	-	-	+16	+32
	250 and over, but less than 300	-	-	+19	+38
	300 and over, but less than 375	-	-	+25	+44
	375 and over, but less than 450	-	-	+32	+51
	450 and above	-	-	+38	+57

Table 10 — Made-up articles (of woven cotton and similar piece goods)

Property	Tolerance on property of individual articles
Length and width ^a	
Baby receiver	±1.5 %
Bed sheets	-1.5 %
Bed spreads	-2 %
Cotton dish cloths	-1.5 cm
Cotton flannelette dusters	-2.5 cm
Cotton table cloth, cotton table napkins	-1.5 %
Curtains	±1.5 %
Duvet cover	±2.0 %
Fitted sheets, night frills, and fitted valances	±1.5 %
Floor cloths	-2.5 cm
Huckaback towels	-1.5 %
Kitchen cloths	-1.5 %
Made up flags	-4 %

	Pillow cases	-2.5 %
	Table cloth	±1.5 %
	Terry bath mats, terry towels	-2.5 %
Size of hem		
	Bed sheets; pillow cases	±3 mm ^b
Stitches per 10 cm		±8
^a provided that the specified area of the made up article is maintained ^b on 2.5 cm hems		

Table 11 — Woven blankets (wool, wool blends and acrylic blends)

Property	Tolerance, %	
	Average property of a lot	Property of individual piece in a lot
size	+4	-2,+4
Mass, m ²	No minus tolerance on specified value	-2.5
Number of threads per cm		
	total -5	-5
	Warp	-5
	weft	-10
Vegetable impurities in white blankets ^a	+0.2	+0.2
Fibre composition		
	All wool	-3
	other	±3
Fibre diameter	±5	±5
Dimensional change on laundering		
	Warp	No tolerance on specified value
	weft	+2
		+2
^a Applicable only when it is specified that the blankets are to be free from vegetable impurities		

Table 12 — Men's half hose and three-quarter hose: properties

Property	Tolerance %	
	Average property of a lot	Property of individual pairs in a lot
Mass per 10 pairs	±3.5	±5
Foreign matter content	No tolerance on specified value	+2 ^a
Linear density of splicing	±10	±10
Wool content	-3	-3

^a provided that the average mass per 10 pairs is sufficient to compensate for the difference between the actual foreign matter content and the specified maximum

Table 13 — Dimensions for Men's half hose and three-quarter hose

Dimensions of		Tolerance, cm		
		On length of a hose in a lot	On difference between hose in individual pairs	On individual hose
Top and leg				
	a) wool hose	±0.5	±0.5	-1,+1.5
	b) wool/stretch hose	±1	±0.5	-1,+1.5
Foot				
	a) wool hose	±0.3	±0.3	-0.5,+1
	b) wool/stretch hose	±0.5	±0.3	-1,+1.5

Table 14 — Surgical dressings

Property		Tolerance on average property of a lot	Tolerance on Property of individual pieces or packages in a lot
Linear density of yarn, %		±10	±20
Piece Width, % ^a		-2.5 (of stated value) ^b	-5 (of stated value) ^b
Piece length, % ^a		-2.5 (of stated value) ^b	-5 (of stated value) ^b
Width of bandages			
	White open weave and unbleached and bleached calico, mm	-1	-2.5
Crepe			
	Less than 100 mm, %	-10	-10
	100 mm and over,%	-5	-5
Orthopaedic stockinette, %		-5	-10
Length of bandages			
	White open weave and unbleached and bleached calico, cm	-5	-10
	Stretched length of crepe bandages, cm	-5	10
Length and width of absorbent gauze swabs, %		-15 ^c	No tolerance specified
Mass per square meter			
	Boric acid lint, %	-12.5	No tolerance specified
	Absorbent lint, %	-10	
	Orthopaedic stockinette, %	-5	-8

	White open wove bandages, %	-10	No tolerance specified
	Absorbent gauze,%	-15	
	Butter muslin,%	-10	
	Crepe bandages,%	-10	
Net mass of packages of cotton wool		No minus tolerance on stated value ^b	+2 %(of stated value) ^b
Number of threads per 10 cm			
	White open wove bandages, %	-5	-10
	Absorbent gauze, %	-10	-20
	Butter muslin, %	-5	-10
	Crepe bandages, %	-5	-10
	Lint (absorbent and Boric acid), %	-5	-10
^a applicable to absorbent gauze and butter muslin only ^b i.e. marked on pieces or packages ^c Provided that the specified area, i.e. the sum of the number of plies in and the length and width of the swabs specified by the purchaser, is maintained			

Table 15 — Loomstate cotton duck

Property	Tolerance on average property of a lot	Tolerance on Property of individual piece in a lot
Width	+4 %	-0.8 cm,+4 %
Piece length	No minus tolerance on stated value ^a	-0.2 (of stated value) ^a
Mass per square meter	No minus tolerance on specified value	-2.5 %
Yarn ply	(+) ^b	(+) ^b
Breaking strength		
Warp	No minus tolerance on the sum of the specified value	-5 %
weft		-5 %
Dimensional changes on immersion in cold water, warp	No tolerance on specified value	+1 % ^c
^a i.e marked on the pieces ^b Yarns of higher ply will be permitted, provided that the resultant count is maintained ^c Provided that the sum of the weft and warp dimensional changes does not exceed the sum of the specified values		

Table 16 — Hessian cloth

Property	Tolerance,%	
	Average property of a lot	Property of individual piece in a lot

width		+2.5	-1.5,+4
Piece length		No minus tolerance on stated value ^a	-0.2 (of stated value) ^a
Number of threads per 10 cm			
	Warp	±2.5	±5
	weft	±2.5	±10
Mass per square meter		No minus tolerance on specified value	-5
Breaking strength			
	Warp	No minus tolerance on specified value	-10
	weft		-10
^a i.e. marked on the pieces			

Table 17 — Narrow fabrics (non-elastic)

Property	Tolerance,%	
	Average property of a lot	Property of individual pieces in a lot
Width	±5	±5
Piece length	No minus tolerance on stated value ^a	-0.2 (of stated value) ^a
Mass per 100 m	+10	-5;+10
Breaking strength	No minus tolerance on specified value	-10
^a i.e. marked on the pieces		

Table 18 — Narrow fabrics (elastic)

Property	Tolerance,%		
	Average property of a lot	Property of individual pieces in a lot	
Width			
	Up to 7 mm	±20	±20
	7 mm and above	±12	±12
Piece length	±5 (of stated value) ^a	±5 (of stated value) ^a	
Mass per 100 m	±10	±10	
Linear density of rubber thread	-5	-5	
^a i.e. marked on the pieces			

Table 19 — Footwear laces

Property	Tolerance on property of individual laces in a lot, %
Length	±5
Abrasion	-10

Table 20 — Tarpaulins

Property	Tolerance on property of individual tarpaulins in a lot, %
Length and width	
Less than 500 cm	-4
500 cm and over, but less than 750 cm	-3
750 cm and over	-2

Table 21 — Polypropylene tape on bobbins

Property	Tolerance, %	
	Average property of a lot	Property of individual pieces in a lot
Linear density	±7.5	±10
Width	±5	±10

Table 22 — Woven polypropylene tape fabrics

Property	Tolerance, %	
	Average property of a lot	Property of individual pieces in a lot
Width	+2;-1	+3;-2
Mass, m ²	±5	±10
Piece length	-1.5 of stated value	-2.5 of stated value

Table 23 — Woven elastomeric fabrics

Property	Tolerance, %	
	average property of a lot	Property of individual piece in a lot
Width	-2.0; +4.0	-5.0; +5.0
Piece length	No tolerance on specified value	1.0 (of stated value) ^a
Mass per square meter (free from non fibrous material)	-2.5; +7.5	-5.0 ^b ; +10.0
Number of threads per cm		
Warp	-2.5; +7.5	-5.0 ^b ; +10.0
weft	-2.5; +7.5	-5.0 ^b ; +10.0
Breaking strength		
Warp	-5.0	-10.0
weft	-5.0	-10.0
Dimensional changes on laundering and ironing		
Warp	-3.5; +3.5	-5.5; +5.5
weft	-5.0; +3.5	-7.0; +6.0
Filling content	-1.5; +1.5	-3.0; +3.0
^a i.e marked on the pieces ^b Provided that the average width of the fabric of the pieces constituting the lot is sufficiently in excess of the specified minimum width to compensate for the lower mass per square meter (free from non fibrous material and the lower number of warp threads per centimeter		

Copy for public comments

Price based on nnn pages

©RSB 2021 - All rights reserved