

# DRAFT UGANDA STANDARD

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## Textiles — Garments — Part 2: Shirts

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## Foreword

Uganda National Bureau of Standards (UNBS) is a parastatal under the Ministry of Trade, Industry and Cooperatives established under Cap 327, of the Laws of Uganda, as amended. UNBS is mandated to coordinate the elaboration of standards and is

- (a) a member of International Organisation for Standardisation (ISO);
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- (c) the National Enquiry Point on TBT Agreement of the World Trade Organisation (WTO).

The work of preparing Uganda Standards is carried out through Technical Committees. A Technical Committee is established to deliberate on standards in a given field or area and consists of key stakeholders including government, academia, consumer groups, private sector and other interested parties.

Draft Uganda Standards adopted by the Technical Committee are widely circulated to stakeholders and the general public for comments. The committee reviews the comments before recommending the draft standards for approval and declaration as Uganda Standards by the National Standards Council.

The committee responsible for this document is Technical Committee UNBS/TC 315, *Textiles and related products*.



# Textiles — Garments — Part 2: Shirts

## 1 Scope

This Draft Uganda Standard specifies requirements and test methods for shirts.

## 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 14362-1, *Textiles — Methods for determination of certain aromatic amines derived from azo colorants — Part 1: Detection of the use of certain azo colorants accessible with and without extracting the fibres*

ISO 14362-3, *Textiles — Methods for determination of certain aromatic amines derived from azo colorants — Part 3: Detection of the use of certain azo colorants, which may release 4-aminoazobenzene*

ISO 16373-1, *Textiles — Dyestuffs — Part 1: General principles of testing coloured textiles for dyestuff identification*

ISO 16373-2, *Textiles — Dyestuffs — Part 2: General method for the determination of extractable dyestuffs including allergenic and carcinogenic dyestuffs (method using pyridine-water)*

ISO 16373-3, *Textiles — Dyestuffs — Part 3: Method for determination of certain carcinogenic dyestuffs (method using triethylamine/methanol)*

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

US ISO 3801, *Textiles — Woven fabrics — Determination of mass per unit length and mass per unit area*

US ISO 9073-1, *Textiles — Test methods for nonwovens — Part 1: Determination of mass per unit area*

US ISO 13934-1, *Textiles — Tensile properties of fabrics — Part 1: Determination of maximum force and elongation at maximum force using the strip method*

US ISO 13938-2, *Textiles — Bursting properties of fabrics — Part 2: Pneumatic method for determination of bursting strength and bursting distension*

## 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 <http://www.iso.org/obp>

**shirt**

garment for the upper part of the body, typically having a collar, sleeves, and front opening

**4 Requirements**

**4.1 General requirements**

Shirts shall comply with the requirements specified in DUS 1970-1.

**4.2 Specific requirements**

**4.2.1 Physical and chemical requirements**

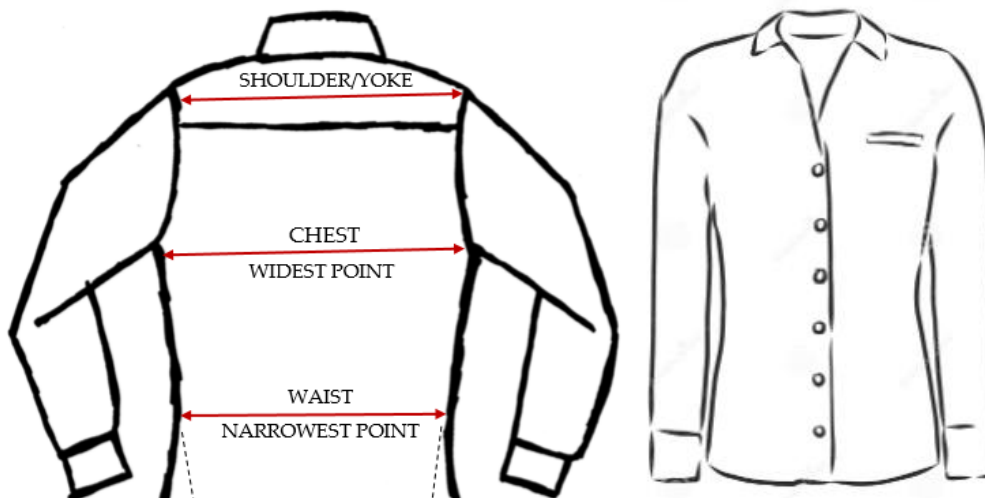
Shirts, or the fabric used for the manufacture of shirts shall conform to the requirements given in Table 1.

**Table 1 — Specific requirements of fabric used to manufacture shirts**

Parameter		Requirement	Test method
Mass per unit area, g/m <sup>2</sup> , min.		100	US ISO 3801 or US ISO 9073-1
Breaking strength, N, min.	Warp direction	440	US ISO 13934-1
	Weft direction	350	
Tear strength (for both directions), N, min.		20	US ISO 13937-1
Bursting strength, kPa, min.		160	US ISO 13938 -2
Abrasion (2000 rubs), min.		No noticeable wear	US ISO 12947-1
Piling resistance (After 5 h of test), min.		4	ISO 12945-1

**4.2.2 Size designation and dimensions**

4.2.2.1 A typical shape of a shirt is shown in Figure.1.



**Figure 1 — A typical shape of a shirt**

**4.2.2.2** The dimensions of shirts of different sizes and designs should conform to the requirements of Table 2 and Table 3 when measured by the method specified in Annex A Unless otherwise, dimensions should be agreed upon between the purchaser and the manufacturer.

NOTE The dimensions/sizes given in Table 2 and Table 3 are for guiding the manufacturer.

**Table 2 — Dimensions of men's and boys' shirts**

Size designation	Collar inches	Chest inches	Waist inches
XXXS	14	30 - 32	24
XXS	14.5	32 - 34	26
XS	15	34 - 36	28
S	15.5	36 - 38	30
M	16	38 - 40	32
L	17	40 - 42	34
XL	17.5	42 - 44	36
XXL	18.5	44 - 46	38
XXXL	19.5	46 - 48	40
NOTE These dimensions are based on the British sizing system. An equivalent of the British sizing chart may be considered.			

**Table 3 — Dimensions of women's and girls' shirts**

Size designation	Bust inches	Waist inches
XXXS (2)	28 - 29	22 - 23
XXS (4)	30 - 31	23 - 24
XS (6)	31 - 32	25 - 26
S (8)	32 - 33	27
S (10)	34 - 35	27 - 28
M (12)	35 - 36	29 - 30
M (14)	37 - 38	30 - 31
L (16)	38 - 40	32 - 33
L (18)	41 - 42	34 - 35
XL (20)	42 - 43	35 - 36
XL (22)	44 - 45	37 - 38
XXL (24)	46 - 48	39 - 40
NOTE These dimensions are based on the British sizing system. An equivalent of the British sizing chart may be considered.		

#### 4.2.3 Seams and stitches

The shirts shall be assembled with lock/chain stitches regulated at not less than 4 stitches per cm.

**4.2.4 Hems**

The hem shall be sewn in place with a slip-stitch or hemming stitch for turned under or seam binding finishes and a blind stitch for overcast finishes.

**4.2.6 Buttons and buttonholes**

**4.2.6.1** The buttons shall be stitched with not less than 12 stitches through each pair of hole when sewn by machine or 11 stitches of single thread and five stitches of double thread when sewn on by hand. The thread shall be wound round the stitches six times when using single threads or three times when using double threads to form a neck. All ends shall be securely fastened.

Note In case of button stitching by machine, the winding of thread around the button to form a neck is not possible.

**4.2.6.2** The number of stitches on buttonholes shall be not less than 8 per cm when stitching is carried out manually and not less than 9 per cm when stitched on machine. Buttonholes shall be bartacked with not less than 5 stitches or fish tailed and shall be cleanly cut. All ends of threads shall be securely fastened. The length of the buttonhole shall be 0.3 cm greater than the diameter plus the thickness of the button.



## **Annex A** (normative)

### **Determination of dimensions of shirts**

#### **A.1 Principle**

Lay a piece of a shirt on a flat table removing any curls and without stretching, take the measurements from one end to the other using a steel rule. Repeat the procedure for other specimens in the laboratory sample.

#### **A.2 Apparatus**

##### **A.2.1 Flat table**

**A.2.2 Steel rule**, accuracy of at least 1 mm

##### **A.2.3 Calculator**

#### **A.3 Sampling**

From a laboratory sample, take one shirt and subject it to conditioning prior to testing.

#### **A.4 Conditioning**

Condition the specimen in accordance with US ISO 139.

#### **A.5 Procedure**

Take each shirt constituting the test sample. Lay it flat on a table. Remove by hand all creases and wrinkles without distorting it. Measure correct to the nearest 0.5 cm the dimensions given in Table 2 or Table 3.

Repeat the procedure for any other specimen that may be required in the laboratory sample.

#### **A.6 Calculation and expression of results**

Take the average of the individual measurements and double the result to obtain the dimensions



## Bibliography

- [1] IS 15852:2009, *Textiles — Woven shirtings made of cotton, man-made fibres/filaments and their blends — Specification*

Public Review Draft

## Certification marking

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