

DRAFT UGANDA STANDARD

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School Clothing — Part 8: Jerseys and cardigans



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Contents

Page

Foreword	iv
Introduction	v
1 Scope	7
2 Normative references	7
3 Definitions	7
4 Materials	8
4.1 Knitted fabric	8
4.2 Supplementary materials and components	10
4.2.1 General	10
4.2.2 Stay tape	10
4.2.3 Sewing threads	10
4.3 Colours of materials and components	11
5 Style, size, and make	11
5.1 Style	11
5.2 Size designation and garment measurements	11
5.3 Make	12
5.3.1 General	12
5.3.2 Depth of waistband and length of cuffs	13
5.3.3 Neckband	13
5.3.4 Front opening of cardigans	13
5.3.5 Depth of V-necks	13
5.3.6 Buttonholes	13
5.4 Stitches, seams, and stitching	13
5.4.1 General	13
5.4.2 Stitches	13
5.4.3 Seams	13
5.4.4 Number of stitches	13
6 Packing, care-labelling, and marking	14
7 Sampling and compliance with this part of DUS 1687	14
8 Inspection and methods of test	14
8.1 Inspection	14
8.2 Knitted structure	14
8.3 Composition	14
8.4 Mean wool fibre diameter	14
8.5 Wales and courses per 10 cm	14
8.6 Mass per unit area	14
8.7 Dimensional changes on washing	14
8.8 Colour fastness to light	14
8.9 Colour fastness to washing	14
8.10 Colour fastness to perspiration	14
8.11 Colour fastness to dry-cleaning	15
8.12 Resistance to pilling	15
8.13 Bursting strength	15
8.14 Breaking strength of sewing threads	15
Annex A (normative) Notes to purchasers	16
Annex B (Informative) Additional information for the guidance of manufacturers	17

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 co-ordinate the elaboration of standards and is

- (a) a member of International Organisation for Standardisation (ISO) and
- (b) a contact point for the WHO/FAO Codex Alimentarius Commission on Food Standards, and
- (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 7, *Textile, Leather, Paper and Related Products*, Subcommittee SC 1, *Textile and Related products*.

DUS 1687 consists of the following parts, under the general title School Clothing:

Part 1: General requirements for school clothing.

Part 2: Blazers.

Part 3: Trousers and shorts.

Part 4: Shirts.

Part 5: Dresses, tunics and gyms.

Part 6: Girls' slacks and skirts.

Part 7: Knee-high stockings and ankle socks.

Part 8: Jerseys and cardigans.

Part 9: Briefs.

Part 10: Tracksuits.

Part 11: Athletic wear.

Introduction

NOTE

- a) requirements that must be specified by the purchaser and a requirement that must be agreed upon by the supplier and the purchaser are noted in Annex A;
- b) additional information for the guidance of manufacturers is given in Appendix B; and
- c) information regarding the verification of the quality of jerseys and cardigans produced to this part of DUS 1687 and a sampling plan that could be used to assess compliance of a lot of jerseys or cardigans with this part of DUS 1687 are given in Annex B of DUS 1687-1

School Clothing — Part 8: Jerseys and cardigans

1 Scope

This part of DUS 1687 covers the requirements for the materials, size, and make of school jerseys and cardigans.

2 Normative references

The following referenced documents 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.

DUS 1779, *Standard test method for wale and course count of weft knitted fabrics*

DUS ISO 137, *Wool — Determination of fibre diameter — Projection microscope method*

DUS ISO 12945-1, *Textiles — Determination of fabric propensity to surface fuzzing and to pilling — Part 1: Pilling box method*

US ISO 105-B02, *Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test*

US ISO 105-C10, *Textiles — Tests for colour fastness — Part C10: Colour fastness to washing with soap or soap and soda*

US ISO 105-D01, *Textiles — Tests for colour fastness — Part D01: Colour fastness to dry-cleaning using perchloroethylene solvent*

US ISO 105-E04, *Textiles — Tests for colour fastness — Part E04: Colour fastness to perspiration*

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

US ISO 4915, *Textiles — Stitch types — Classification and terminology*

US ISO 5077, *Textiles — Determination of dimensional change in washing and drying*

US ISO 5079, *Textile fibres — Determination of breaking force and elongation at break of individual fibres*

US ISO 13938-1, *Textiles — Bursting properties of fabrics — Part 1: Hydraulic method for determination of bursting strength and bursting distension*

DUS 1687-1, *School clothing — Part 1: General requirements for school clothing*

3 Definitions

For the purposes of this part of DUS 1687 the definitions given in DUS 1687-1 and the following definitions shall apply:

cardigan

a knitted garment having long sleeves, and a two-piece front that fastens with buttons or a slide fastener

jersey

a knitted garment having long sleeves, and a one-piece front

nominal

subject to the tolerances normal to good manufacturing practice

size designation

the numerical value of the chest/bust girth, in centimetres, of the intended wearer

Acceptable

Acceptable to the authority administering this standard, or to the parties concluding the purchase contract, as relevant

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>

4 Materials

4.1 Knitted fabric

The knitted fabric shall consist exclusively of acrylic yarns, or of wool yarns, or of a blend of wool and other fibres, as specified by the purchaser, and should comply with the requirements of table 1 or table 2, as relevant. The cuff and waistband ribbing shall each be of one of the structures given in the appropriate table, as specified (in both cases) by the purchaser

Table 1— Knitted fabric requirements: acrylic garments

1	2	3
Property	Requirement	Test method subsection
Knitted structure		7.2
Body and sleeves	1 x 1 rib	
Neck band	1 x 1 rib	
Strapping	1 x 1 rib	
Cuffs	2 x 1 or 2 x 2 rib	
Waist band	2 x 1 or 2 x 2 rib	
Composition,%		7.3
Acrylic	100	
Wales per 10cm, min		7.5
Body and sleeves	48	
Neck band	48	
Strapping, knitted with		
a) one end of yarn	48	
b) two ends of yarn	45	
Cuffs and waistband	54	
Courses per 10cm,min		7.5

Body and sleeves	83	
Neck band	92	
Strapping, knitted with		
a) one end of yarn	75	
b) two ends of yarn	60	
Cuffs and waistband	90	
Mass per unit area, g/m², min	335	7.6
Dimensional changes on washing, %, max		7.7
Length	4	
Area	6	
Colour fastness to light, rating, min	5	7.8
Colour fastness to washing, rating, min		7.9
Change in colour	4	
Staining of transfer cloths	4	
Colour fastness to perspiration, rating, min		7.10
Change in colour	4	
Staining of transfer cloths	4	
Resistance to pilling, rating, min	3	7.12
Bursting strength, kPa, min	600	7.13

Table 2— Knitted fabric requirements: wool and wool-containing garments

1	2	3
Property	Requirement	Test method subsection
Knitted structure		7.2
Body and sleeves	1 x 1 rib	
Neck band	1 x 1 rib	
Strapping	1 x 1 rib	
Cuffs	2 x 1 or 2 x2 rib	
Waist band	2 x 1 or 2 x2 rib	
Composition, %		7.3
New wool	100	
Blended new wool, min	60	
Other fibres, max	40	
Mean wool fibre diameter, µm	22.5 to 27.0	7.4
Wales per 10cm, min		7.5
Body and sleeves	48	
Neck band	48	
Strapping, knitted with		

a) one end of yarn	48	
b) two ends of yarn	45	
Cuffs and waistband	54	
Courses per 10cm,min		7.5
Body and sleeves	62	
Neck band	62	
Strapping	62	
Cuffs and waist band	54	
Mass per unit area, g/m², min	440	7.6
Dimensional changes on washing, %, max		7.7
Length	5	
Area	8	
Colour fastness to light, rating, min	5	7.8
Colour fastness to washing, rating, min		7.9
Change in colour	4	
Staining of transfer cloths	4	
Colour fastness to perspiration, rating, min		7.10
Change in colour	4	
Staining of transfer cloths	4	
Colour fastness to dry cleaning, rating, min		7.11
Change in colour	4	
Staining of transfer cloths	4	
Resistance to pilling, rating, min	3	7.12
Bursting strength, kPa, min	600	7.13

4.2 Supplementary materials and components

4.2.1 General

The supplementary materials and components shall comply with the relevant requirements laid down in sub clause 4.2 of DUS 1687-1

4.2.2 Stay tape

In addition, the stay tape shall comply with the requirements for type TA 6, and its colour shall be an acceptable match to that of the knitted fabric.

4.2.3 Sewing threads

In addition, the breaking strength, determined in accordance with sub clause 8.14, of needle over locking threads and sewing threads for linking shall be at least 15 N.

4.3 Colours of materials and components

The colour(s) of the material(s) and components shall be an acceptable match to the required colour(s) as agreed upon between the purchaser and the supplier.

5 Style, size, and make

5.1 Style

The style shall be that of a cardigan or a jersey, and shall have one of the following types of neck as specified (in both cases) by the purchaser:

a) Cardigans

- 1) Crew-neck
- 2) V-neck

b) Jerseys

- 1) Crew-neck
- 2) V-neck
- 3) Turtle-neck
- 4) Polo-neck

5.2 Size designation and garment measurements

The jerseys and cardigans should be supplied in one (or more) of the size designations given in column 1 of table 3 or table 4 (as relevant), and their measurements should conform to the appropriate values given in columns 2-6 of the relevant table. Both the size designation(s) and whether the garments are to be for girls or boys shall be as specified by the purchaser

Table 3—Size designation and garment measurements for jerseys and cardigans for girls (see figure 1)

1	2	3	4	5	6
Size designation	Garment measurements				
	cm, min				
	Bust girth	Back length	Sleeve girth	Sleeve length	
				Over arm	Under arm
	2 × A to B	C to D	2 × B to G	C to E	B to F
50-54	56	42	26	55	31
56-60	62	43	28	57	33
62-66	68	46	30	60	34
68-72	74	48	32	64	38
74-78	80	50	34	68	40
80-84	86	54	36	72	42

86-90	92	57	38	75	44
92-96	98	59	40	80	46
98-102	104	59	42	83	47
104-108	110	60	44	84	48
110-114	116	60	46	85	49

Table 4— Size designation and garment measurements for jerseys and cardigans for boys (see figure 1)

1	2	3	4	5	6
Size designation	Garment measurements cm, min				
	Chest girth 2 × A to B	Back length C to D	Sleeve girth 2 × B to G	Sleeve length	
				Over arm C to E	Under arm B to F
50-54	56	42	26	55	31
56-60	62	43	28	58	33
62-66	68	46	30	60	34
68-72	74	49	32	66	38
74-78	80	53	34	70	42
80-84	86	57	36	74	43
86-90	92	61	38	78	46
92-96	98	62	40	82	48
98-102	104	63	42	86	49
104-108	110	65	44	88	51
110-114	116	66	46	90	53

5.3 Make

5.3.1 General

The body, sleeves, neckbands, cuffs, waistbands, and, where relevant, the strapping of the cardigans and jerseys should be of a fabric that complies with the requirements given in table 1 or table 2, as relevant. Sleeves shall be raglan or set-in, as specified by the purchaser, and shall be one-piece sleeves that are seamed under the arm and tapered to the cuff

The shoulders of garments with set-in sleeves shall be stayed with

- an appropriate length of stay tape(see sub clause 4.2.2);or
- an appropriate length of the knitted fabric (that has been cut parallel to the course direction) of nominal width 6 mm.

5.3.2 Depth of waistband and length of cuffs

The depth of the waistband and the length of cuffs shall be as specified by the purchaser, and shall, in both cases, be in the range 60 mm to 100mm, except that, in the case of sleeves with turn-back cuffs, the cuff length shall be as agreed between the purchaser and the supplier.

5.3.3 Neckband

The neckband shall be sewn or linked to the neck opening and shall be as follows:

- a) Crew-neck cardigans, crew-neck and V-neck jerseys. Folded width: 25-30mm
- b) Turtle-neck jerseys. Folded width: 30-35mm
- c) Polo-neck jerseys. Overall (single) width: 80-150 mm.

5.3.4 Front opening of cardigans

- a) **Crew-neck cardigans.** Strapping of folded or single width at least 25 mm or a slide fastener shall have been sewn or, in the case of strapping, linked to the front edges of the cardigan. When a slide fastener is used, the raw edges of the knitted fabric shall have been over locked and turned-in before the sewing-in of the slide fastener.
- b) **V-neck cardigans.** A continuous length of strapping of folded or single width at least 25mm shall have been sewn or linked to the front edges and neck.

5.3.5 Depth of V-necks

Unless otherwise specified by the purchaser, the base of the "V"(see point H in figure 1) on a V-neck cardigan or jersey shall be in line with the base of the scye.

5.3.6 Buttonholes

Buttonholes shall be of the shirt type with a bar at each end and shall be equidistantly spaced. The length shall be such as to accommodate acceptably the relevant button.

5.4 Stitches, seams, and stitching

5.4.1 General

All sewing shall be in accordance with US ISO 4915.

5.4.2 Stitches

Over locking and seaming stitch type 504 to 507 or other acceptable type of stitch

5.4.3 Seams

Seam type SSa or seam type SSh.

5.4.4 Number of stitches

The number of stitches per 10cm (for both seams and cover thread) shall be 40 ± 4 throughout.

6 Packing, care-labelling, and marking

The requirements of clause 5 of DUS 1687-1 shall apply.

7 Sampling and compliance with this part of DUS 1687

The requirements of clause 6 of DUS 1687-1 shall apply.

8 Inspection and methods of test

8.1 Inspection

Visually examine and measure each jersey or cardigan in the sample for compliance with all the requirements of sections 3 and 4 of this part of DUS 1687 for which tests to assess compliance are not given in 8.3-8.14 (inclusive).

8.2 Knitted structure

Determine by visual examination.

8.3 Composition

Determine by microscopical examination and chemical analysis.

8.4 Mean wool fibre diameter

Use DUS ISO 137

8.5 Wales and courses per 10 cm

Use ASTM D8007

8.6 Mass per unit area

Use US 3801

8.7 Dimensional changes on washing

Use US ISO 5077, procedure D1. For acrylic garments, use drying procedure F and tumble-dry at room temperature. For wool and wool containing garments, use drying procedure G

8.8 Colour fastness to light

Use US ISO 105-B02.

8.9 Colour fastness to washing

Use US ISO 105-C10.

8.10 Colour fastness to perspiration

Use US ISO 105-E04.

8.11 Colour fastness to dry-cleaning

Use US ISO 105-D01.

8.12 Resistance to pilling

Use the method given in DUS ISO 12945-1 but use a test period of only 4 h.

8.13 Bursting strength

Use US ISO 13938-1.

8.14 Breaking strength of sewing threads

Use US ISO 5079

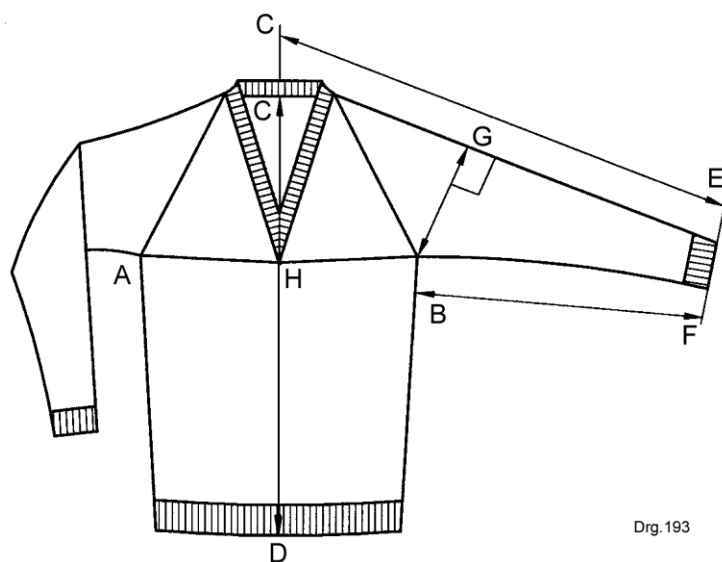


Figure 1— Garment measurements

Annex A

(normative)

Notes to purchasers

A.1 The following requirements must be specified in tender invitations and in each order or contract:

- a) The composition, i.e. acrylic, wool, or blended (see clause 4.1);
- b) the knitted structure of the cuffs and welt (see clause 4.1 and tables 1 and 2);
- c) the colour(s) (see clause 4.3);
- d) the style and type of neck(see clause 5.1);
- e) the size designation and whether for girls or boys (see clause 5.2);
- f) the type of sleeve, i.e. raglan or set-in(see sub clause 5.3.1);
- g) the depth of the waistband (see sub clause 5.3.2);
- h) the length of cuffs (see sub clause 5.3.2);
- i) in the cases of V-neck cardigans and jerseys, the depth of the "V", if other than as specified (see sub clause 5.3.5); and
- j) additional marking, if required (see clause 6.4 of DUS 1687-1).

A.2 The following requirement must be agreed upon between the supplier and the purchaser:

The cuff length of sleeves with turn-back cuffs (see sub clause 5.3.2)

Annex B (Informative)

Additional information for the guidance of manufacturers

B.1 Nominal linear density of yarns

High bulk acrylic: R74Tex/2

Wool and wool-containing blends: R76 Tex/2

B.2 Nominal stitch length

Acrylic yarns: 5.40 mm

Wool and wool-containing yarns: 4.80 mm

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