

DRAFT UGANDA STANDARD

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Textiles — Sewing threads — Part 1: Sewing threads made wholly or partly from synthetic fibres — Specification



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Foreword

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- (a) a member of International Organisation for Standardisation (ISO) and
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- (c) the National Enquiry Point on TBT/SPS Agreements 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 representatives of consumers, traders, academicians, manufacturers, government and other stakeholders.

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, *Textiles, Leather, Paper and related products*, Subcommittee SC 1, *Textiles and related products*.

This second edition cancels and replaces the first edition (US 948-1:2011), which has been technically revised.

Textiles — Sewing threads — Part 1: Sewing threads made wholly or partly from synthetic fibres — Specification

1 Scope

This draft Uganda Standard specifies requirements for sewing threads made wholly or partly from synthetic fibres. This Part 1 applies to sewing threads made from the following fibres and combinations thereof:

- a) continuous filament polyester;
- b) staple fibre polyester;
- c) air-jet (Loop) textured polyester;
- d) false twist (Crimp) textured polyester;
- e) continuous filament nylon_{6,6};
- f) polyester and cotton core spun (continuous filament polyester core, cotton sheath);
- g) polyester and polyester core spun (continuous filament polyester core, polyester sheath); and
- h) polyester and cotton component plied.

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.

ISO 105-B03, Textiles — Tests for colour fastness — Part B03: Colour fastness to weathering: Outdoor exposure

ISO 6741-1, Textiles — Fibres and yarns — Determination of commercial mass of consignments — Part 1: Mass determination and calculations

ISO 6939, Textiles — Yarns from packages — Method of test for breaking strength of yarn by the skein method

US EAS 247 Method for determination of colour fastness of textiles to peroxide washing (sodium perborate)

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

US ISO 105-C10, Textiles — Colour fastness Part C10: Colour fastness to washing with soap or soap with 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 1833 (all parts), Textiles — Binary fibre mixtures — Quantitative chemical analysis

US ISO 2060, Textiles — Yarn from packages — Determination of linear density (mass per unit length) by the skein method

3 Terms and definitions

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

3.1 sewing thread
structure of fibres or filaments produced by any of a variety of techniques such that the cohesive whole can withstand the mechanical operation of sewing

3.2 air- jet (loop) textured
threads made from consolidation of continuous filament component yarns produced by controlled overfeeding in a turbulent air stream by texturing process

3.3 false twist (crimp) textured
thread made from continuous filament yarns which have been subjected to a texturing process by highly twisting, heat setting in the twisted state and then untwisting

3.4 polyester and cotton core spun
threads made from two or more single core yarns (that is, yarns produced at the spinning frame by feeding a filament yarn through the delivery rollers simultaneously with the spinning of the staple material)

3.5 polyester and cotton component plied
threads made from combination yarns in which a continuous filament polyester yarn is folded with a cotton yarn

3.6 core spun
threads made from yarns produced at the spinning frame by feeding a filament yarn through the delivery rollers simultaneously with the spinning of staple materials

3.7 breaking strength or tensile strength
maximum tensile force recorded when a test piece is extended to breaking point

NOTE: Processes such as spinning, twisting, braiding, bounding, false twist or air-jet texturing etc, (use either individually or in combination) are employed to attain the necessary consolidation of fibres or filaments required in sewing thread. An appropriate finish or lubricant may be added to facilitate sewing.

4 Requirements

4.1 General requirements

4.1.1 The thread shall be reasonably free from knots and other defects.

4.1.2 The thread shall have the uniformity of thickness, construction and other component ply tension that is required for use on the appropriate types of sewing machines.

4.1.3 Different finishes, such as soft and glance core spun, unbounded or bounded continuous filament nylon, may also be available for specific uses.

4.1.4 When visually examined, sewing thread shall have a uniform shade(s) or whiteness and shall be devoid of singeing defects and stains, where applicable.

4.2 Specific requirements

4.2.1 The resultant linear density of the thread in tex shall be as declared subject to tolerance of $\pm 2\%$ for continuous filament threads and $\pm 4\%$ for spun and plied threads. This shall be determined in accordance with US ISO 2060.

4.2.2 The minimum breaking strength shall comply with the tables 1 to 3. This shall be determined in accordance with ISO 6939.

4.2.3 The type of sewing thread shall be as declared. In case of blends, the blend composition shall be declared subject to a tolerance of ± 5 . This shall be determined in accordance with US ISO 1833.

4.2.4 The net mass of a package of a sewing thread shall be as declared subject to a tolerance of -2% . This shall be determined in accordance with ISO 6741-1.

4.2.5 The length of the sewing thread contained in a package shall be as declared subject to a tolerance of -2% .

4.2.6 The colourfastness of the dyed thread shall be not lower than those specified in Table 4.

4.2.7 The number of knots permissible in a package of sewing thread shall be as specified in Table 5

Table 1 — Requirement for polyester threads

Thread type	Approximate resultant linear density, Tex	Breaking strength for single strand, N, min.
Continuous filament	13	6
	15	7.8
	17	8
	25	11
	30	14
	39	18
	46	20
	50	23
	65	30
	75	36
	95	45
	125	59
	150	66

	190	88
	215	102
	285	135
	300	150
	375	180
	500	220
	600	265
	800	330
	1000	390
	1170	430
Staple filament	22	5.5
	29	8
	33	9.5
	45	11
	45	13
	65	19
	105	32
	280	85
Air-jet textured	22	4.9
	32	8
	40	12
	44	13
	57	17
	66	20
	99	30
	150	43
False twist textured	20	4.9
	39	9.8
	80	19

Table 2 — Requirement for nylon_{6,6} and aramid threads

Thread type	Approximate resultant linear density Tex	Breaking strength for single strand, N, min.
Continuous filament	18	8.8
	27	13.5
	40	20

	55	27
	83	40
	107	54
	170	80
	230	110
	250	120
	340	160
	420	200
	520	240
	700	335
	780	350
False twist textured	17	4.9
	34	9.8
	68	19
Meta-aramid	45	13.5
	48	14.5
	75	22
	155	45
Para-aramid	40	45
	62	68
	80	90

Table 3 — Requirement for polyester and cotton core spun threads (continuous filament polyester core, cotton sheath) and polyester/polyester core spun threads (continuous filament polyester core, staple polyester fibre sheath)

Thread type	Approximate resultant linear density	Breaking strength for single strand, N, min.
	Tex	
Polyester / cotton	22	6.5
	26	8.8
	34	11
	40	13
	43	16
	68	25
	80	29
	100	35
	120	44
	160	59
	255	88
	385	130
	475	175

	600	210
	710	260
Polyester/polyester	22	7.5
	24	8.1
	27	9.6
	34	12
	45	16.6
	66	26.5
	78	34
	118	53
	156	70

Table 4 — Minimum colourfastness for dyed threads

Agency	Numerical Rating		Test Methods
	Change in colour	Colour staining	
Artificial light	4-5	-	US ISO 105-B02
Washing	3-4	4	US ISO 105-C10
Dry cleaning	3-4	4	US ISO 105-D01
Perspiration	3-4	4	US ISO 105-E04
Peroxide washing	3-4	4	US EAS 247
Weathering (outdoor exposure)	4-5	-	ISO 105-B03

Table 5 — Number of permissible knots in a package of sewing thread

Package length, m	Permissible knots
Up to 1000	Not more than 1
More than 1 000 but not exceeding 2 500	Not more than 2
More than 2 500 but not exceeding 4 000	Not more than 3
More than 4 000 but not exceeding 5 500	Not more than 4
More than 5 500 but not exceeding 7 000	Not more than 5
More than 7 000 but not exceeding 8 500	Not more than 6
More than 8 500	Not more than 7

5 Package formation, wrapping and packing

5.1 Package formation

Sewing threads shall be compactly and uniformly wound into cones, cheeses, spools, tubes, hanks or skeins. The free end of the thread shall be securely fastened to prevent unravelling.

5.2 Wrapping

Each package shall be neatly and securely wrapped in wrappers to prevent it from damage or contamination with dust, moisture or fumes.

5.3 Packaging

The neatly and securely wrapped packages shall be packed in boxes (cartons) in the agreed quantities (preferably in dozens or grosses).

6 Labelling

6.1 Unit package (carton)

Each unit package (carton) shall have a label bearing the following information with legible and indelible marking in English and any other additional language for example, Kiswahili, may be agreed upon as the contract or order may direct

- a) manufacturer's name and address;
- b) type of sewing thread;
- c) number of pieces in a carton;
- d) lot or batch number;
- e) net mass;
- f) country of origin; and
- g) year of manufacture

6.2 Cones (cheeses)

The individual cones (cheeses) have the following information:

- a) type of thread;
- b) length of thread; and
- c) nominal resultant linear density/nominal count

Bibliography

US 948-1:2011, *Textiles — Sewing threads — Part 1: Sewing threads made wholly or partly from synthetic fibres — Specification*

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