

DRAFT UGANDA STANDARD

Second Edition
2019-mm-dd

Bed blankets — Part 1: Blankets made from suitable flame resistant fabrics — Specification



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DUS 914-1: 2019

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Foreword

Uganda National Bureau of Standards (UNBS) is a parastatal under the Ministry of Tourism, Trade and Industry established under Cap 327, of the Laws of Uganda. 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/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 914-1:2011), which has been technically revised.

Bed blankets — Part 1: Blankets made from suitable flame resistant fabrics — Specification

1 Scope

This part of DUS 914 specifies the requirements, method of sampling and test for a flame resistant blanket composed of suitable flame resistant fabrics

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 4920, *Textiles — Determination of resistance to surface wetting (spray test) of fabrics*

ISO 5659-2, *Plastics — Smoke generation— Part 2: Determination of optical density by a single chamber test*

ISO 12952-4, *Textiles — Burning behaviour of bedding items —Part 4: Specific test methods for the ignitability by a small open flame*

ISO 13937-1, *Textiles — Tear properties of fabrics — Part 1: Determination of tear force of fabrics using ballistic pendulum method (Elmendorf)*

ISO 14419, *Textiles – Oil repellency – Hydrocarbon*

US EAS 248, *Textiles — Methods for determination of threads per centimetre in woven fabrics*

US EAS 254, *Textiles — Tear properties of fabrics — Determination of tear resistance by falling pendulum (Elmendorf) apparatus*

US ISO 105-B01, *Textiles — Tests for colour fastness — Part B01: Colour fastness to light: Daylight*

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

US ISO 105-X12, *Textiles — Tests for colour fastness — Part X12: Colour fastness to rubbing*

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

ISO 4589, *Plastics — Determination of burning behaviour by oxygen index (all parts)*

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

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

3 Terms and definitions

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

3.1

lot

total number of blankets included in any part delivery of the bulk

3.2

bulk

total number of blankets included in the contract of supply

3.3

limiting oxygen index (LOI)

minimum concentration of oxygen required in the air mixture just to support the downward burning (like a candle) of a vertically placed strip specimen. High oxygen concentration requirement indicate better flame retardancy of the specimen. The oxygen concentration is reported as volume percent.

3.4

AATCC

American Association of Textile Chemists and Colorists

4 Requirements

4.1 General

4.1.1 Blankets shall present a neat, well finished appearance and shall be free of all imperfections and/or defects which might affect appearance, normal life, or serviceability.

4.1.2 Blankets shall be "first" commercial grade, clean, and free from tears or holes.

4.1.3 Blankets shall be machine washable, laundered by the same procedure as for sheets and capable of being tumble dried without damage.

4.1.4 Blankets shall be moth and mildew proof.

4.1.5 Blankets shall have permanent flame resistance.

4.1.6 When placed on a flat surface, blankets shall be flat on all sides, and the ends shall be straight and parallel.

4.1.7 There shall be no broken or loose yarn, stitches, or seams. Threads shall be trimmed.

4.2 Materials

4.2.1 The fabric shall be manufactured out of inherent permanent flame retardant fibre whose flame retardancy does not diminish either with ageing (ultra violet light degradation) or repeated washing. At the same time it is preferable to have fibre of substances which do not nourish bacteria. The linen item should have good texture and should give good feel.

4.2.2 The base fabric shall be of woven design, free from yarn defects and stains and should lay flat when it is spread. There should not be any chemical coating over the surface to achieve flame retardancy. It shall be thoroughly de-sized, scoured and heat set so as to maintain dimensional stability and have no shrinkage. The construction features like denier, number of ends and picks, shall be adjusted in such a way that the fabric retains the required level of air permeability. The fabric shall be sufficiently pliable and free from tackiness. The threads used shall be flame resistant preferably made from same material

4.3 Specific requirements

The blanket shall comply with the requirements given in the Table 1.

Table 1 — Requirements for blankets

S/No	Characteristics	Value	Test methods
1	Weight, g/m ²	450 ± 20	US ISO 3801 US EAS 248
2	Weave type	Woven	Visual
3	Breaking strength, Newton Warp Weft	1250 250	US ISO 13934-1 Strip size:(5 × 20) cm
4	Tear strength, Newton Warp Weft	75 45	ISO 13937-1 US EAS 254
5	Resistance to spread of flame – minimum	Class – B	ISO 12952-4
6	Limiting Oxygen Index (LOI)	Minimum - 28	ISO 4589
7	Deterioration of visibility due to smoke – minimum	Class – B	ISO 5659-2
8	Dimensional stability Warp, % max Weft, % max	2.5 2.5	US ISO 5077
9	Colour fastness to daylight (accelerated fading), min	4	US ISO 105-B01
10	Colour fastness to washing, min	4	US ISO 105-C10
11	Colour fastness to rubbing (Wet & Dry)	4	US ISO 105-X12
12	Water repellency test – spray test, min	80	ISO 4920
13	Oil repellency test – Hydrocarbon resistance test, min	6	ISO 14419
14	Shrinkage in Laundering	Not exceed ± 5%,	US ISO 5077

NOTE 1: For retention of fire retardant, Water repellency, Oil repellency and anti-bacterial property, the minimum number of washing cycles in home laundering without any reactive chemicals like bleach etc. to be specified by manufacture.

NOTE 2: Details not specified herein shall be in accordance with standard commercial practices for products of this type.

5 Tests

5.1 Test pieces shall be cut from the samples in the required number and in the appropriate manner as specified in the individual methods of test. Samples for tear strength and resistance to spread of flame as stipulated in Table 1 shall be cut as per test methods prescribed.

5.2 The specimen for resistance to spread of flame, Anti Bacterial property, Germ count test, water repellency - spray test & Oil repellency - Hydrocarbon resistance test including greasy food shall be subjected to 10 launderings cycles on a minimum of three samples.

5.4 Number of test

5.4.1 All the tests given in Table 1 shall be carried out on each lot except Toxicity and Anti Bacterial test. The test for Toxicity index and Anti Bacterial test shall be done once in six months. Ten blankets shall be randomly selected from a lot for visual examination and if found satisfactory, further tests as specified shall be carried out.

5.4.2 Out of ten numbers randomly selected from a lot, one shall be selected for the test specimens necessary for the various tests specified in the standard. All the samples shall be kept out of contact from one another or any other material that may cause contamination.

5.5 Criteria for conformity of bulk sample

The lot shall be declared as conforming to specification for various characteristics referred in Table 1, if for each of the characteristics the mean values of the test results on all the individual specimens are found to be within limits of the specification. Failing of a sample on account of any of the characteristics shall mean rejection of the full lot.

6 Packaging

6.1 Each lot shall contain specified number of blankets of one colour and one size only.

6.2 Each blanket shall be folded in accordance with standard commercial practice and inserted in a suitable packaging material so as to ensure safe transportation.

6.3 The blankets shall be packed in neat and dry conditions. Each pack (lot) shall be marked at the outer end (within 5 cm) as given in Clause 7.

7 Marking and labelling

7.1 Marking

The following information shall appear in legible and indelible marking on each lot marked in English and any other additional language for example, Kiswahili, may be agreed upon as the contract or order may direct.

- a) name of contents;
- b) quantity;
- c) name and address of the manufacturer;
- d) colour;
- e) lot number or batch number; and

- f) care label.

7.2 Individual labelling

Each blanket shall have a permanent label securely attached at one end. The label shall be commercial type and shall have the name of the manufacturer or trademark. The marking shall be well defined, clearly legible and show good fastness to laundering. The blanket shall also be labeled for composition or fiber content and care label.

Bibliography

US 914-1:2011, *Bed blankets* — Part 1: Blankets made from suitable flame resistant fabrics — *Specification* (First Edition).

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