

Stockings— Specification

Part 2:

Ladies' stockings and Panty hose

KS 584-2: 2020

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Part 2:

Ladies' stockings and pantyhose

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KS 584-2: 2020

Foreword

This Kenya Standard was prepared by the Technical Committee on Ready Made garments under the guidance of the Standards Projects Committee, and it is in accordance with the procedures of Kenya Bureau of Standards.

The manufacture and performance requirements of stockings in this standard are vital for manufacturers to meet consumer expectations of good quality seamless stockings.

This fourth edition cancels and replaces the Third edition (KS 584-2:2017) which has been technically revised.

During the preparation of this standard, references were made to the following documents:

MS 2.57: Specification for rib-knitted gents' nylon stockings.

MS 2.54: Specification for rib-knitted cotton stockings.

IS 833: Specification for gents' rib-knitted nylon stockings.

Acknowledgement is hereby made for the assistance received from these sources.

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1 Scope

This Kenya Standard specifies the requirements for ladies' stockings and panty hose made from elasticized material.

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.

KS 2659, *Packaging of textile products — Code of practice*

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

KSISO 105 B04, *Textiles — Tests for colour fastness — Part B04: Colour fastness to artificial weathering: Xenon arc fading lamp test*

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

KS ISO 105 E01, *Textiles — Tests for colour fastness — Part E01: Colour fastness to water*

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

KS ISO 105-N02, *Textiles — Tests for colour fastness — Part N02: Colour fastness to bleaching: Peroxide*

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

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

KS ISO 1833 (all parts), *Textiles — Quantitative chemical analysis*

KS ISO 7211-5, *Textiles — woven fabrics construction — Determination of linear density of yarn removed from fabric.*

KS ISO 2061, *Textiles — Determination of twist in yarns — Direct counting method*

KS ISO 2062, *Textiles — Yarns from packages — Determination of single-end breaking force and elongation at break using constant rate of extension (CRE) tester*

KS ISO 2076, *Textiles — Man-made fibres — Generic names*

KS ISO 3758, *Textiles — Care labelling code using symbols*

KS ISO 6938, *Textiles — Natural fibres — Generic names and definitions*

KS ISO 8388, *Knitted fabrics — Types — Vocabulary*

KS ISO 11827, *Textiles — Composition testing — Identification of fibres*

KS 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*

KS 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*

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

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

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

KS ISO 16549, *Textiles — Unevenness of textile strands — Capacitance method*

KS 411, *Size designation for women and girls*

KS 415, *Glossary of terms relating to hosiery*

KS 529, *Specification for elastic flat braids*

KS 1113-1, *Specification for staple spun yarns— Part 1: Cotton yarns*

KS 1113-2, *Specification for staple spun yarns — Part 2: 100% wool (worsted) yarns*

KS 1113-3, *Specification for staple spun yarns — Part 3: Polyester/cellulosic blended yarns*

KS 1113-4, *Specification for staple spun yarns — Part 4: Polyester/wool blended yarns*

KS 1114-1, *Specification for textured filament yarns — Part 1: Polyester yarns*

KS 1114-2, *Specification for textured filament yarns — Part 2: Polyamide yarns*

KS 1829, *Labelling of products — General requirements*

KS 207-2, *Glossary of textile terms pertaining to defects in fabrics Part 2: Knitted fabrics*

3 Terms and definitions

For the purposes of this standard, the definitions given in KS 415 the following definitions shall apply:

3.1 Ladies stockings

Close fitting covering the leg from foot up to the knee or to the upper thigh. they come in matched pairs

3.2 Panty hose

Close fitting legwear covering the wear's body from the waist to the toes.

3.3

batch of stockings

more than one pair of stockings of the same type and size packed together

4 Requirements

4.1 Fibre composition and proportion

4.1.1 The stocking and panty hose shall be manufactured from yarns made from textile fibres described in KS ISO 6938 and KS ISO 2076.

4.1.2 The fibre composition and proportion shall be tested and calculated in accordance with KS ISO 11827 and KS ISO 1833: Parts 1 to 28. Where the yarn used is a blend of two or more fibers, the fibre composition shall be as declared with a maximum tolerance of $\pm 5\%$.

4.2 Yarns

The yarns used to knit the stockings and panty hose shall comply with the requirements of KS 1113 and KS 1114 including the following:

4.2.1 Breaking tenacity

The breaking tenacity of the yarns used to knit the stocking and panty hose, calculated as a ratio of the breaking strength to linear density in accordance with KS ISO 2062 shall be as given in Table 1.

4.2.1.1 Linear density

The linear density to be used to calculate the breaking tenacity of the yarn shall be determined from a yarn from the stocking and panty hose in accordance with KS ISO 7211-5.

4.2.3 Elongation at break

The elongation of the yarns tested at break shall be as given in Table 1.

4.2.4 Yarn unevenness

The yarn unevenness tested in accordance with KS ISO 16549 shall comply with the requirements of Table 2.

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Table 1 — Yarn requirements for ladies' stockings and panty hose

SL No	Fibre	Requirements	
		Tenacity in g/tex (min.)	Elongation at break in percent (min.)
i)	Nylon	35.0	30.0
ii)	Polyester	32.0	27.0
iii)	Wool	28.0	20.0
iv)	Acrylic	25.0	17.0
v)	Cotton	30.0	5.0
vii)	Blends	See Notes.	
Test methods		KS 630-2	KS 268
<p>NOTE 1 The minimum tenacity (g/tex) and elongation at break per cent of each yarn used to make yarn to yarn blended stocking and panty hose shall be shown against each yarn type in this table.</p> <p>NOTE 2 The ratings of minimum tenacity (g/tex) and elongation at break per cent of the fibre blended yarn used in the blended stocking and panty hose, shall not be less than those of the fibre component in the blend whose yarn has a lower rating in accordance with this table. For example, in a nylon/wool or polyester/wool blend; the minimum tenacity and elongation at break of the yarn shall not be less than that of the woollen yarn as shown in this table.</p>			

Table 2 — Yarn unevenness

SL No	Yarn type	Linear density, in tex	CV%, max.	U%, max.
i)	Nylon [6;6,6]	10-70	3.5-0	2.8-0
ii)	Polyester	10-70	3-0	2.4-0
iii)	Acrylic	10-70	18-8	14.4-6.4
iv)	Wool	10-70	23.5	18.8
v)	Cotton	15-70	19-9	15.2-7.2
vi)	Polyester/Wool	10-70	23.5-14	18.8-11.2
vii)	Polyester/Cotton	10-70	15-12	12-9.6
viii)	Other Blends	10-70	23.5-12	18.8-9.6
ix)	Elastic Yarns	10-70	15-16	12-12.8

5 Manufacture of stockings and panty hose

5.1 The two stockings comprising a pair shall be manufactured from yarn of the same fibre composition, tenacity and count.

5.2 The stocking and panty hose shall be securely joined at the toe. The joining shall be elastic, smooth and free from knots.

5.2.1 The joining at the toe shall not give way when the stocking and panty hose is stretched to the full extent of its stretchability.

5.2.2 The colour of threads used for stitching and joining the stocking and panty hose shall be as similar as possible to that of the stocking body.

5.2.3 The size identification thread shall be not more than 2 cm in length.

6 Defects

6.1 The stocking shall be free from manufacturing defects such as mends, ladders, dropped stitches, improper splicing and both dyeing and finishing defects as defined in KS 207, Part 2.

6.2 Dyed and/or printed stockings shall conform to colour fastness requirements given in Table 3.

7 Restricted colourants

Ladies stockings and panty hose which have been dyed with a colorant shall not contain any of the listed colourants in KS ISO 14632, Parts 1 and 3 and KS ISO 16373, Parts 2 and 3.

Dye classes shall be identified in accordance with KS ISO 16373-1.

8 Sizes

8.1 The size of each pair of stocking and panty hose shall be as declared (see 9.c).

Table 3 — Colour fastness requirements

SL No	Agency	Numerical rating (min.)		Test method
i)	Washing	Colour Change	4	KS ISO 105 C10 (Test number A1)
		Staining	4	
ii)	Perspiration	Acid	3	KS ISO 105 E04
		Alkali	3	
iii)	Rubbing	Dry	4	ISO 105 X12
		Wet	4	
iv)	Light		5	KS ISO 105 B02
v)	Peroxide washing (sodium perborate)	Colour change	4	KS ISO 105 N02
		Staining	4	

9 Marking

Each pair of stockings and panty hose shall be marked with the following information:

- name or trade mark of manufacturer;
- fibre composition and proportion of the stocking;

- c) Size designation as per KS ISO 8559-2 and KS ISO 5971 for panty hose
- d) care instructions in accordance with KS ISO 3758;
- e) country of manufacture.

10 Packaging

Packaging of ladies' stockings and panty hose shall be done in accordance with KS 2659 including the following:

- a) Each pair of stockings shall be packaged in a suitable packaging material to protect it from contamination and damage; and
- b) Each package containing a batch of stockings and panty hose or several batches shall have the following information which shall be indicated on the package, the sewing ticket and/or accompanying documents:
 - 1) name or trade mark of manufacture;
 - 2) number of panty hose and number of pairs in each batch in case of stocking; and
 - 3) total number of batches in the package.