KENYA STANDARD

DKS 2944:2021

ICS 59.080

First Edition

Disposable helmet liner Specification

Kenya Bureau of Standards

Standards for Quality life

TECHNICAL COMMITTEE REPRESENTATION

The following organizations were represented on the Technical Committee:

Kenya Bureau of Standards — Secretariat

REVISION OF KENYA STANDARDS

In order to keep abreast of progress in industry, Kenya Standards shall be regularly reviewed. Suggestions for improvements to published standards, addressed to the Managing Director, Kenya Bureau of Standards, are welcome.

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Foreword

This Kenya Standard was prepared by the Technical Committee on Readymade Garments under the guidance of the Standards Project Committee, and it is in accordance with the procedures of the Kenya Bureau of Standards.

Helmet liners protects helmet from sweat, stains and odour. This standard will protect the users from substandard disposable helmet liners.

In the preparation of this standard reference was made to the following documents:

KS 2933 surgical cap – Specification

Acknowledgement is made for the assistance received from these sources.

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1. SCOPE

This Kenya Standard prescribes the minimum requirements for disposable helmet liners.

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.

KS 816-Methods for determination of absorbency of absorbent textile materials

KS ISO 1833 Textiles — Quantitative chemical analysis (relevant parts)

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

KS ISO 9073-4, Textiles — Test methods for nonwovens — Part 4: Determination of tear resistance

KS ISO 9073-15, Textiles - Test methods for nonwovens part 15: Determination of air permeability

KS ISO 9073-18, Textiles — Test methods for nonwovens Part 18: Determination of breaking strength and elongation of nonwoven materials using the grab tensile test

3. TERMS AND DEFINITIONS

For the purpose of this standard, the following definition apply

3.1 Air Permeability

Velocity of an air flow passing perpendicularly through a test specimen under a prescribed air pressure differential over a certain time period

Note: Air permeability is expressed in litres per square centimeter per second ($l/cm^2.s$), or any other equivalent unit

3.2 Absorption capacity

Mass of liquid that is absorbed per unit mass of test piece

4. REQUIREMENT

4.1 Materials

4.1.1 General

All materials, dyes and chemicals used in the manufacture of disposable helmet liners shall not cause any undesirable effects to the skin.

4.1.2 Securing mechanism

The disposable helmet liners shall be fitted with an approximate securing mechanism that fits comfortably around the head of the wearer.

4.2 Workmanship

The disposable helmet liners shall be made with first class workmanship throughout and shall be free from defects that affect their appearance and/or serviceability, and free from marks spots or stains incurred in their manufacture.

4.3 Performance requirements

Disposable helmet liners shall comply with the performance requirements given in Table 1 when tested in accordance with the test methods prescribed therein.

Table 1 **— Performance requirements for disposable helmet liners**

S/N	Characteristic		Requirement	Test method
i.	Absorption capacity, seconds		Above 60	KS 816 Method 2
ii.	Air Permeability, l/cm^2.s, min		0.015	KS ISO 9073-15*
iii.	Breaking Strength, N, min	Cross direction	15	KS ISO 9073-18
		Machine direction	35	
iv.	Mass per unit area, g/m^2 ,min		13	KS ISO 9073-1
v.	Fiber composition		100% Polyolefin	KS ISO 1833
vi.	Tearing strength, N, min	Cross direction	6	KS ISO 9073-4
		Machine direction	17 take the lower value	
*use differential pressure of 100 Pa across the specimen (ISO 9327)				

4.3 **Restricted colorants**

If helmet liners are dyed, it shall be free from colorants listed in KS ISO 14632 parts 1 & 3 and KS ISO 16373-2 & 3. Dyestuffs shall be identified in accordance with KS ISO 16373-1.

5. PACKAGING

5.1 All disposable helmet liners shall be packaged in a suitable acceptable packaging material.

6. LABELLING

6.1 The following information in English shall be legibly and indelibly marked on the secondary packaging in which the disposable helmet liners is supplied

a) manufacturers name and address
b) country of manufacture
c) Number of units
d) The colour of the product
e) Instructions for use and disposal