



DEAS 863-2:2015

ICS

DRAFT EAST AFRICAN STANDARD

Specification for cut-size papers; Part 2. Photocopy paper

EAST AFRICAN COMMUNITY

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Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

In order to achieve this objective, the Community established an East African Standards Committee mandated to develop and issue East African Standards.

The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the procedures of the Community.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

This Draft East African Standard, DEAS 863-2, was prepared by Technical Committee EASC//TC/065 Paper and paper products. The Committee is composed of representatives from National Standards Bodies, regulators and academia, together with the representatives from the private sector and consumer organizations in Partner States.

Cut-size paper- Specification -Part 2. Photocopy paper;

1 Scope

This Part 2 of this Draft East African Standard prescribes requirements, methods of sampling and test for photocopy paper.

Normative Reference

ISO 536:2012 Paper -- Determination of grammage

ISO 287:2009 Paper and board -- Determination of moisture content of a lot -- Oven-drying method

ISO 2471:2008 Paper and board -- Determination of opacity (paper backing) -- Diffuse reflectance method

ISO 2470-2:2008 Paper, board and pulps -Measurement of diffuse reflectance-part 2 Outdoor daylight conditions (d65 brightness)

ISO 6588-2:2012 Paper, board and pulps -- Determination of ph of aqueous extracts -- Part 2: Hot extraction

ISO 534:2011 Paper and board -- Determination of thickness, density and specific volume.

ISO 534:2011 Paper and board -- Determination of thickness, density and specific volume.

ISO 8791-1:1986 Paper and board -- Determination of roughness/smoothness (air leak methods) -- Part 1: general method

Use ISO 5637 Paper and board determination of water absorption after immersion in water

ISO 14968:1999 Paper and board -- Cut-size office paper -- Measurement of curl in a pack of sheets

ISO 216:2007 Writing paper and certain classes of printed matter -- Trimmed sizes -- A and B series, and indication of machine direction".

3 Terms and Definitions

For the purposes of this standard, the following definitions, shall apply:

3.1

Cross Direction (CD)

the direction in the paper that is at right angles to the machine direction.

3.2

defective

a set of test pieces that fails in one or more respects to comply with the relevant requirements of the standard.

3.3

feathering and spread

feathering is the appearance of fine lines of ink at an angle to a line of ink drawn with a pen. Spread is the general excessive widening of a line of ink.

3.4

Grammage

the mass per unit area of sheet material, in grammes per square metre.

3.5**grammage, actual**

the average grammage obtained on a sample of paper under specified test conditions and that shall normally be within 5 per cent of the nominal grammage.

3.6**grammage, nominal**

the designated grammage of paper that is used for reference purposes.

3.7**long grain**

the orientation when the machine direction of the paper is in the long direction of the sheet.

3.8**lot**

one or more nominally identical package of paper, the paper having been made on the same equipment under essentially the same conditions, from one manufacturer, and submitted at any one time for inspection and testing.

3.9**surface resistivity**

The electrical resistance between two straight edged electrodes of the same length positioned to form the opposite edges of a rectangle in contact with the surface on one side of a sheet of paper, multiplied by the electrode length and divided by the distance between them.

4 Requirements**4.1 General Requirements**

4.1.1 The paper shall be free from loose fibres, bits of loose paper, dust, wood splinters, dirt, creases and any other defects that shall impair its serviceability.

4.1.2 The edges of the paper shall be clearly cut and straight.

4.1.3 Each side of the paper shall accept all common writing media without undue signs of feathering or spread.

4.1.4 The paper shall be white or coloured and the machine direction of the paper shall be in the longer direction of the sheet, i.e. the sheets shall be long grain.

4.2 Specific requirements

Photocopy paper shall comply with the requirements given in Table 1.

TABLE 1. Specific requirements photocopy paper

SL No.	PROPERTY	REQUIREMENT	TEST METHOD
(i)	Grammage, $\pm 5\%$ g/m ²	80	ISO 536
(ii)	Moisture content as packed, %	4.5 ± 1	ISO 287
(iii)	Opacity, %, min.	85	ISO 2471
(v)	ISO brightness †, %, min.	75	ISO 2470-2
(vi)	pH of aqueous extract, range	4.5—9.5	ISO 6588-2
(vii)	Thickness, mm, range	0.08—0.10	ISO 534
(viii)	Roughness, mL/min	300	ISO 8791-1

	max		
(ix)	Cobb g/m ²	18—24	ISO 535
(x)	Infra red curl deflection, mm		
	Top side: Positive, max. Negative, max.	15	
	Bottom side: Negative, min.	3	
	Negative, max.	0	
		15	ISO 14968

‡ Applicable to white paper only.

5 Dimensions

5.1 Size — The sheet of the paper when tested in accordance with ISO 216 the paper shall be nominally A3 or A4 series.

- (a) the deviation of the length and width from the nominal length and width of the measured sheets, and
- (b) the difference between the corresponding dimensions of any two sheets measured, shall comply with the requirements given in Table 2.

5.2 Squareness — When determined in accordance with Appendix A, the difference between the lengths of the diagonals of a sheet shall comply with the requirements of Table 2.

TABLE 2. Dimensional tolerances of sheets

SL No.	Property	Size designation		Test method
		A3	A4	
(i)	Difference between lengths of diagonals, mm, max.	1.4	1.0	Annex A
(ii)	Deviation of length and width from nominal, mm, max.	1.0		Annex A
(iii)	Difference of length and width measurements between sheets, mm, max.	0.8		Annex A

6 Packaging and Labelling

6.1 Packaging

6.1.1 General — Sheets of paper shall be packed in suitable material that protects from damage and contamination during transportation and storage.

The wrapping and sealing shall be adequate to ensure that during normal transportation, handling and storage, the moisture content of the paper remains within the limits specified in Table 1.

No adhesive shall adhere to the copy paper. The sheets of paper shall not adhere to one another. Reams shall only contain sheets that are nominally identical with respect to size, grammage and colour.

6.1.2 . Number of Sheets of Paper in a Ream — The number of sheets of paper in a ream shall be 500 with a tolerance of $\pm 1\%$.

6.1.3 Package — A pack shall only contain reams that are identical. The packagepack shall be of a quality adequate to protect the contents during normal transportation, handling and storage.

The style of the package shall be such as to provide uninterrupted (step less) flat surface in the top and bottom of the pack.

6.2 Labelling

The following shall be marked legibly and indelibly on the wrapping of each ream and on each box:

- a) The name and physical address of the manufacturer or local distributor and registered trade mark,;
- b) The name of the product;
- c) The size designation of the paper;
- d) The number of reams in each pack;
- e) Number. of sheets in each ream
- f) The grammage of the paper;
- g) The colour of the paper, if other than white.

7 Sampling and compliance with the specification

7.1 Sampling

7.1.1 Sampling of Package. To determine whether the packing and marking requirements of the standard with respect to package are met, take at random from the lot the number of package given in Table 3, appropriate to the lot size.

If the package are on pallets, take as nearly as possible the same number of package from each pallet to make up the total number of package required. Deem the samples so taken to represent the lot for the respective properties.

TABLE 3. Selection of units

Size of lot, number of units, n	Number of units selected	Method of selection
1 to 5	All	—
6 to 399	$\sqrt{(n+20)}$	At random
400 or more	20	At random

* In deciding the number of units to be selected round down to the nearest whole number.

7.1.2 Sampling of Reams and Paper — To determine whether the requirements of the standard with respect to reams and paper are met, after inspection of the package sampled in accordance with 7.1.1, take at

random a ream from each of five of the package sampled; or if fewer than five package are sampled, take a ream from each of them and deem the samples so taken to represent the lot for the respective properties.

7.2 Compliance with the Specification

The lot shall be deemed to comply with the relevant requirements of the standard if

- a) after inspection of package for packing and marking, not more than one defective is found,
- b) after inspection of the reams for packing and marking not more than one defective is found,
- c) after inspection of the paper for defects, not more than five defects are found, and,
- d) after testing in accordance with 4.2.2, no defect is found.

8 Inspection

8.1 Inspection of Package — Visually examine each of the corrugated board package sampled in accordance to 7.1.1 for compliance with the packing and marking requirements and report the results for each box.

8.2 Inspection of Reams — Visually examine each of the reams sampled in accordance with 6.1 and 6.2 for compliance with the packing and marking and report the results for each ream.

8.3 Inspection of Paper — Open a ream and immediately remove from about the centre of the ream, the number of sheets required for the determination of moisture content.

Take all reasonable precautions to avoid detectable change in moisture content of the sampled sheets.

Afterwards count the remaining number of sheets in the ream, add the number removed, and report the total number of sheets in the ream. From the remaining sheets in the ream, take at random 50 consecutive sheets and inspect both sides for

- a) compliance with the requirements of 4.1,
- b) the machine direction.

Report the number of defects found. Repeat this procedure with the other ream samples. Report the total number of defects found.

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