

KENYA STANDARD

BABY FEEDING BOTTLES — SPECIFICATION

PUBLIC REVIEW DRAFT APRIL 2015

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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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KENYA STANDARD

BABY FEEDING BOTTLES—SPECIFICATION

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Foreword

This first edition of this Kenya Standard was prepared by the technical committee on Household Products and endorsed by the Standards Projects Committee under the authority of the National Standards Council.

Baby feeding bottles are widely used for nursing babies. Baby care being a very sensitive area, there is need to develop a standard to address health and safety issues.

During the preparation of this standard, reference was made to the following:

- JIS T 9112:1997- Feeding Bottles.
- IS 14625:1999 – Plastic Feeding Bottles.
- Reference Materials from the industry.

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

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BABY FEEDING BOTTLE — SPECIFICATION

1. Scope

This standard prescribes requirements and test methods for feeding bottles used for nursing babies.

2. Description

Feeding bottles shall be made of plastics.

3. Requirements

3.1 Materials

3.1.1 The material shall be Polypropylene which shall be food grade. The material used for the bottles shall not allow migration of constituents of plastic into the baby food and tested according to table 2 (3).

3.2 **The shape of mouth** part shall be of two types: cap type and pullover type according to attaching methods of nipple/teats. Bottle teats shall conform to KS 1844:2007. The neck shall be hollow to ensure proper cleaning in line with good manufacturing practices. The mouth part shall be smooth and the shape of the body shall be well proportioned and free from visual defects.

3.3 **The capacity** of feeding bottles shall be as indicated in table 1.

3.4 The intervals between scales shall indicate 10ml and the minimum scale shall not be more than 20% of the maximum indication scale. The tolerance on the maximum indication scale shall conform to table 1. The scale lines and indication values shall be clear and permanently marked, and be unlikely to be affected by high temperature and/or germicidal treatment and cleaning.

3.5 Appearance

3.5.1 There shall be no crack, chip and crazing and substance not dissolved shall not be included

3.5.2 There shall be no bubbles, foreign substance, line, die skin, distortion, flaw, and stain.

3.7 The feeding bottles shall be free from remarkable variety and variation of capacity shall be as per annex B.

3.8 The rate of flexibility of diameter in pressurizing direction shall be a minimum of 10%.

Table 1 Capacity of baby feeding bottles (Maximum indication scale)

Indicated Capacity in ml	40-200	210-290	300-450
Tolerance on Maximum indication scale	±4	±5	±6

Table 2 Requirements for baby feeding bottles.

S/N	Characteristic	Requirement	Determination
1	Material Requirement	Polypropylene,	KS 2323:2011, KS 2321
2	Pigments and colorants		KS 1667
3	Migration of constituents		KS 2319
4	Transparency	Min. 60% in light transmittance	Annex B
5	Ageing Resistance	Variation within 1%	Annex C
6	Pressurized deformation resistance	Max. 10% rate of flexibility	Annex D
7			
8			

5. Marking and Packaging

5.1 Marking

Each bottle shall be legibly and indelibly marked with the following information:

- i) The name and/or registered trade mark of the manufacturer/distributor; or logo of manufacturer.
- ii) Sign for recycling

5.2 Packaging

- i) Product name
- ii) The name and/or registered trade mark of the manufacturer/distributor; or logo of manufacturer.
- iii) Address of manufacturer or importer.
- iv) Batch number
- v) "Made in Kenya" or country of origin where applicable
- vi) Maximum Indicated Capacity
- vii) Standardization mark
- viii) Sign for recycling

Annex A Determination of Capacity

A.1 The capacity of feeding bottles shall be obtained using a mass meter the maximum scale of which is 0.1g or under, by converting 1g to 1ml with regard to the mass of the bottle at the time when water is filled up to the upper end of scale line for indicated volume by the mass in which no water is put.

Annex B

Determination of Transparency

B.1 Test specimen shall be prepared from the part of feeding bottle where scale marks or other marks are not found.

B.2 Apparatus

B.2.1 Light transmittance measurement device

B.3 Test specimen- The size of test specimen shall be 50×50 mm and the thickness shall be the original thickness of the test specimen. Three test specimens shall be prepared.

B.4 Measurement

Install the white standard plate, adjust the reading (T_1) of the device's current meter to be 100; adjust the amount of incident light.

Under the status where the white standard plate is installed, install and measure the test specimen to obtain the indication (T_2) of the current meter. The full light transmittance shall be calculated according to the following formula:

$$T = \frac{T_2}{T_1} \times 100$$

Where T = full light transmittance (percent).

Annex B

Determination of Ageing Resistance

The feeding bottle shall be immersed in boiled water for 20 minutes and in ice water for 20 minutes alternately. Repeat the procedure 10 times.

Annex B

Determination of Pressurized deformation resistance

Using a compressive jig as shown in Fig 1, the compressive load of 20N shall be applied to the middle or the part of the maximum outside diameter of the shell of feeding bottle and the deflection of this part is measured. Calculate the rate of flexibility by the following formula. The temperature in the test room shall be (20±5) °C.

Unit : mm

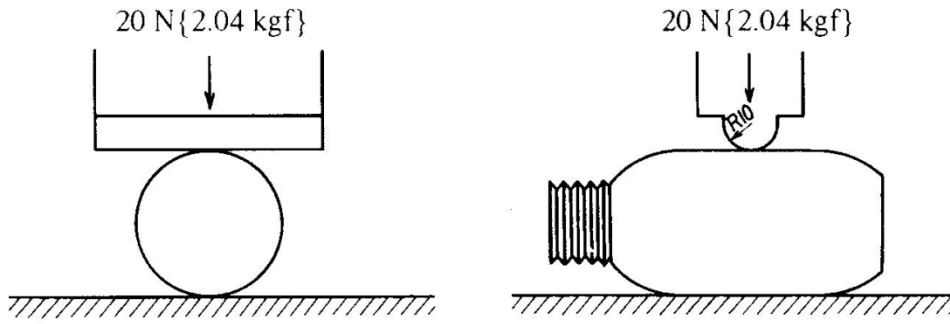


Fig 1 Pressurized deformation resistance test compressive jig

$$B = \frac{D1 - D2}{D1} \times 100$$

Where

B = Rate of flexibility (5)

D1= Outside diameter before the test (mm)

D2= Outside diameter at the time of compression (mm)

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