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भारतीय मानक

प्रसाधन साबुन – विशिष्टि

(तीसरा पुनरीक्षण)

Indian Standard

TOILET SOAP — SPECIFICATION

(Third Revision)

ICS 71.100.40

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

February 2004

Price Group 3

FOREWORD

This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Soaps and Other Surface Active Agents Sectional Committee had been approved by the Chemical Division Council.

The standard for common toilet soap which is opaque was first issued in 1951 as IS 284:1951 'Specification for toilet soap (*Withdrawn*)' on specific request from Indian Soap and Toiletries Makers' Association and Ministry of Defence, Government of India. Subsequently, IS 839:1956 'Specification for transparent toilet soap (*Withdrawn*)' was issued to cover transparent toilet soap. The concerned Committee while reviewing the progress in soap industry during the sixties considered it desirable to merge these two specifications and accordingly IS 2888 : 1964 'Specification for toilet soap' was issued having two types, namely, toilet soap and transparent toilet soap.

The standard for toilet soap was revised in 1974 taking into consideration the need for rationalization of grades, desirability of excluding requirements which were not pertinent to quality, safety and optimum performance of the product for the consumer, the shortage of oils and fats in the country and development of technology. Consequently, the requirements for total fatty matter and matter insoluble in alcohol had been modified. Moreover, in view of the production and consumption of transparent toilet soap in small quantities, it was deleted from the standard. Sampling clauses were also suitably modified.

IS 7963 : 1976 'Janata toilet soap (*Withdrawn*)' was formulated at the suggestion of the Government of India, the Indian Soap and Toiletries Makers, Association (ISTMA), Bombay, had at that time agreed to produce and market an inexpensive type of toilet soap (called the Janata variety). The Janata toilet soap was essentially different from the toilet soap (IS 2888) in its lower total fatty matter content and covered as Grade 2 in second revision of this standard. In the second revision another lower grade of soap which was being marketed in the country was also incorporated. It is essentially a saponified soap with/without the addition of cresylic acid and colour (usually red) processed further without drying, namely, cooling, cutting-into bars, billets and stamping. Such a process results in soap with sixty percent total fatty matter. The requirement for unsaponified matter was also deleted to cover the super fatted soap.

In the third revision of the standard four amendments already issued have been incorporated in the standard besides amendment to the requirements of Rosin acid and matter insoluble in alcohol for Grades 2 and 3 have been modified. In marking clause 'total fatty matter' and any other ingredients have been included.

A scheme for labelling environment friendly products to be known as ECO-Mark is being introduced at the instance of the Ministry of Environment and Forests (MEF). The ECO Mark shall be administered by the Bureau of Indian Standards under the *BIS Act*, 1986 as per the Resolution No. 71 dated 20 February 1991 published in the Gazette of the Government of India. For a product to be eligible for ECO-Mark it shall also carry the standard mark of BIS for quality besides meeting additional optional environment friendly (EF) requirements.

This standard, therefore, incorporates environment friendly requirements for toilet soap which is based on the Gazette Notification No. 188 dated 28 April 1992 for toilet soap as environment friendly products published in the Gazette of India.

The Committee responsible for formulation of this standard is given in Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

TOILET SOAP — SPECIFICATION

(Third Revision)

1 SCOPE

This standard prescribes requirements and methods of sampling and test for toilet soap.

2 REFERENCES

The following standards contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	*Title*
5 : 1994	Colours for ready mixed paints and enamels (*fourth revision*)
286 : 1978	Methods of sampling and test for soaps (*second revision*)
1070 : 1992	Reagent grade water (*third revision*)
4955 : 2001	Household laundry detergent powders — Specification (*fourth revision*)
7597 : 2001	Surface active agents — Glossary of terms (*first revision*)
13424 : 2001	Safety evaluation of bathing bars and toilet soaps — Methods of test (*first revision*)
13498 : 1997	Bathing bars — Specification (*first revision*)

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 7597 shall apply.

4 GRADES

Toilet soap shall be of three grades, namely, Grade 1, Grade 2 and Grade 3.

5 REQUIREMENTS

5.1 Description

5.1.1 *Grade 1*

This is a high grade, thoroughly saponified, milled soap or homogenized soap or both, white or coloured, perfumed and compressed in the form of firm smooth cakes, and shall possess good cleaning and lathering properties.

5.1.2 *Grade 2*

This is a thoroughly saponified, plodded soap of firm and smooth texture. It shall be white or coloured, perfumed and shall possess good cleaning and lathering properties

5.1.3 *Grade* 3

This is a saponified soap of firm and smooth texture. It shall be white or coloured, usually red if cresylic acid is added and shall possess good cleaning and lathering properties.

5.2 Ingredients

In addition to perfume and moisture, toilet soap may contain only colouring matter, preservatives, medicaments and such additional substances as are declared on the label. All the foregoing materials shall be non-injurious in use with soap.

5.3 The phenolic substances, such as cresylic acid, if added, shall not exceed 2.5 percent by mass when tested as prescribed in **26** of IS 286.

5.4 Optional Requirement for Defence Supply

5.4.1 *Colour*

The material shall be of uniform colour and shall match to light orange (ISC No.557) or light solomon (ISC No. 442) or opaline green (ISC No. 275) or apple green (ISC No. 281) of IS 5.

5.5 Toilet soap shall also comply with the requirements specified in Table 1 when tested by methods specified in col 6 and 7 of Table 1. Unless specified otherwise, pure chemicals and distilled water (*see* IS 1070) shall be employed in the tests.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the results of analysis.

Table 1 Requirements for Toilet Soap
(*Clauses* 5.5 *and* 7.3.1)

Sl No.	Characteristic	Requirement			Method of Test	
		Grade 1	Grade 2	Grade 3	Ref. to Clause No. of IS 286	Ref. to Annex of IS 13498
(1)	(2)	(3)	(4)	(5)	(6)	(7)
i)	Total fatty matter, percent by mass, *Min*	76.0	70.0	60.0	15	—
ii)	Rosin acid, percent by mass of total fatty matter, *Max*	3.0	3.0	3.0	14	—
iii)	Free caustic alkali, as sodium hydroxide (NaOH), percent by mass, *Max*	0.05	0.05	0.05	6.2	—
iv)	Matter insoluble in alcohol, percent by mass, *Max*	2.5	10	10	5	—
v)	Chlorides (as sodium chloride), percent by mass, *Max*	1.50	1.50	1.50	10	—
vi)	Free carbonated alkali, percent by mass, *Max*	1.0	1.0	1.0	28	—
vii)	Lather	280	240	200	—	B

NOTE — The test for requirement of free carbonated alkali need not be carried out when percentage of alcohol insolubles is less than 1.1.

5.5.1 *Calculation of Results*

Toilet soap is liable to lose moisture on keeping. The results of analysis in respect of free caustic alkali and matter insoluble in alcohol shall be recalculated in relation to the minimum specified total fatty matter by means of the equation:

$$\text{Recalculated result} = \text{Actual result} \times \frac{\text{Minimum specified total fatty matter}}{\text{Actual total fatty matter}}$$

5.6 Optional Requirements for ECO-Mark

5.6.1 *General Requirements*

5.6.1.1 The product shall conform to the requirements for quality, safety and performance prescribed under **5.1** to **5.5.1**.

5.6.1.2 The manufacturers shall produce to BIS environmental consent clearance from the concerned State Pollution Control Board as per the provisions of the *Water (Prevention and control of Pollution) Act,* 1974 and *Air (Prevention and Control of Pollution) Act,* 1981 along with the authorization, if required under the *Environment (Protection) Act,* 1986, while applying for Eco-Mark.

5.6.2 *Specific Requirements*

5.6.2.1 The material shall neither contain any synthetic detergent when tested as per the method given in Annex B and Annex C of IS 4955 nor any phosphate when tested as per the method prescribed in **20** of IS 286.

5.6.2.2 The material shall pass the test for dermatological safety when evaluated as per the method prescribed in IS 13424.

6 PACKING AND MARKING

6.1 Packing

The material shall be packed as agreed to between the purchaser and the supplier.

6.1.1 For ECO-Mark the product shall be packed in such packages which are made from recyclable/reusable or biodegradable materials and declared by the manufacturer and may be accompanied with detailed instruction for proper use.

6.2 Marking

The packages shall be securely closed and marked with the following:

a) Name of the manufacturer;
b) Brand name of the material and recognized trade-mark, if any;
c) Grade of the material;
d) Net mass when packed;
e) Batch No. or Lot No. in code or otherwise;
f) Year and month of manufacture;
g) Total fatty matter;
h) Any other ingredients;
j) The criteria for which the product has been labelled as ECO–Mark;
k) The following identified critical ingredients in descending order of quantity, percent by mass, for ECO–Mark;
   i) Total fatty matter (TFM); and
   ii) Water insoluble matter.

6.2.1 *BIS Certification Marking*

The packages may also be marked with the Standard Mark.

6.2.1.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act,* 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

7 SAMPLING

7.1 For the purpose of general precautions, scale of sampling and preparation of test samples shall be as prescribed in **3.1, 3.2** and **3.3** respectively of IS 286.

7.2 Number of Tests

7.2.1 Tests for the determination of total fatty matter, free caustic alkali and matter insoluble in alcohol shall be conducted on each of the individual samples separately.

7.2.2 Tests for determination of all the remaining characteristics shall be conducted on the composite sample.

7.3 Criteria for Conformity

7.3.1 *For Individual Samples*

For each of the characteristics which has been determined on the individual samples (*see* **7.2.1**) the mean ($\bar{X}$) and the range (R) of the test results shall be calculated as follows:

$$\text{Mean } (\bar{X}) = \frac{\text{Sum of test results}}{\text{Number of test results}}$$

Range (R) = Difference between the maximum and the minimum value of the test results

The lot shall be deemed as conforming to the requirements given in **7.2.1,** if the expression ($\bar{X} - 0.6R$) is greater than or equal to minimum value given in Table 1, and ($\bar{X} + 0.6R$) is less than or equal to maximum value given in Table 1.

7.3.2 *For Composite Sample*

For declaring the conformity of a lot to the requirements of other characteristics determined on the composite sample, the test results for each of the characteristics shall satisfy the relevant requirement.

ANNEX A

(*Foreword*)

COMMITTEE COMPOSITION

Soaps and Other Surface Active Agents, CHD 25

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Drugs Controller General of India, New Delhi	SHRI ASHWINI KUMAR (***Chairman***)
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(*Continued on page 5*)

(*Continued from page* 4)

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Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act,* 1986 to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

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Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

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AMENDMENT NO. 1 OCTOBER 2007
TO
IS 2888 : 2004 TOILET SOAP — SPECIFICATION

(Third Revision)

[*Page* 3, *clause* **6.2**(k)] — Substitute the following for the existing:

'k) The following identified critical ingredients in descending order of quantity, percent by mass, for ECO-Mark:

i) Total fatty matter (TFM), and
ii) Matter insoluble in alcohol.'

(CHD 25)

Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 2 SEPTEMBER 2008
TO
IS 2888 : 2004 TOILET SOAP — SPECIFICATION

(Third Revision)

[*Page* 2, *Table* 1, *col* 2, *Sl No.* (vii)] — Substitute 'Lather in ml, *Min*' *for* 'Lather'.

[*Page* 2, *Table* 1, *col* 7, *Sl No.* (vii)] — Substitute 'C' *for* 'B'.

(*Page* 2, *clause* **5.6**) — Substitute '**Additional Requirements for ECO-Mark**' *for* '**Optional Requirements for ECO-Mark**'.

(CHD 25)

Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 3 MAY 2013
TO
IS 2888 : 2004 TOILET SOAP — SPECIFICATION

(Third Revision)

[*Page* 2, *Table* 1, *Sl No*. (ii), *col* (2)] — Substitute 'Rosin acid[1)] ' *for* 'Rosin acid'.

[*Page* 2, *Table* 1, *Sl No*. (vii)] — Insert the following at the end:

'[1)] If rosin is not used as an ingredient during the manufacture of soap there is no need to test the requirement of rosin acid content'.

(CHD 25)

Reprography Unit, BIS, New Delhi, India