

IS : 7532 - 1974
(Reaffirmed 2011)

Indian Standard
SPECIFICATION FOR SOFT SOAP

(Fourth Reprint JANUARY 1997)

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

AMENDMENT NO. 4 MARCH 2002
TO
IS 7532 : 1974 SPECIFICATION FOR SOFT SOAP

[*Page 5, clause 5.2(e)*] — Insert the following new item at the end:

- 'f) Critical ingredients mentioning the actual compound in descending order up to a limit of 0.5 percent by mass, as identified under ECO-Mark Scheme.'

(CHD 25)

Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 3 OCTOBER 1989
TO
IS : 7532-1974 SPECIFICATION FOR SOFT SOAP

(Page 4, clause 4.2) - Insert the following
Note after 4.2:

'NOTE - The material shall be considered as
showing no sign of deterioration if it still
conforms to 4.1.'

(CDC 35)

Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 2 MARCH 1986

TO

IS:7532-1974 SPECIFICATION FOR SOFT SOAP

(*pace 3, clause 0.3*) - Substitute the following
for the existing clause:

'0.3 Soft soap is intended for general washing and
cleaning purposes and can be used as lubricant and
coolant in machine operation/conveyor belts in the
form of aqueous solution.'

(CDC 35)

Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 1 JANUARY 1985

TO

IS : 7532-1974 SPECIFICATION FOR SOFT SOAP

(Page 7, clause A-2.1, line 5) - Substitute
'blue' for 'pink'.

(CDC 35)

Reprography Unit BIS New Delhi, India

Indian Standard

SPECIFICATION FOR SOFT SOAP

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(Continued on page 2)

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IS : 7532 - 1974

(Continued from page 1)

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Indian Standard

SPECIFICATION FOR SOFT SOAP

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 25 November 1974, after the draft finalized by the Soaps and Other Surface Active Agents Sectional Committee had been approved by the Chemical Division Council.

0.2 Soft soap is distinguished from ordinary hard soap by its soft, jelly-like texture and thus is usually packed in metal or waxed paper containers.

0.3 Soft soap is intended for general washing and cleaning purposes and for industrial purposes in the form of aqueous solution.

0.4 In the preparation of this standard, assistance has been derived from the following publications which is thankfully acknowledged:

i) G/O. P. 61E-1960 Soft soap. Directorate General of Supplies & Disposals, Government of India.

ii) BS 1913 : 1966 Soft soap. British Standards Institution.

0.5 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*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

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

2. TERMINOLOGY

2.1 For the purpose of this standard, the definitions given in 2 of IS : 286-1966† shall apply.

3. TYPES

3.1 The material shall be of following two types:

- a) Type 1, and
- b) Type 2.

*Rules for rounding off numerical values (*revised*).

†Methods of sampling and test for soaps (*first revision*).

4. REQUIREMENTS

4.1 Description - The material shall be homogeneous translucent mass of jelly-like texture, free from putrescent, fishy or objectionable odour. It applies to soft soap with potassium or sodium base or a mixture of these bases. It does not apply to soaps for medicinal purposes. It may or may not be suitably perfumed subject to agreement between the purchaser and the supplier. It shall be free from foreign matter and visible impurities.

4.2 The material shall quickly form a satisfactory lather while in use and shall show no sign of any deterioration on storage in original sealed containers under normal conditions for a period of 12 months.

4.3 Consistency — The soap shall not become liquid at 32°C, and no liquid shall separate when the soap is maintained at 0°C. for 24 hours.

4.4 Calculation of Results Soft soap is liable to lose moisture on keeping. The results obtained for unsaponified and unsaponifiable matter, total free alkali and free caustic alkali by the specific methods of analysis shall, therefore, be recalculated in relation to the specified minimum total fatty matter by means of the equation:

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

4.5 The material shall comply with the requirements given in Table 1.

TABLE 1 REQUIREMENTS FOR SOFT SOAP

(Clauses 4.5 and 7.1)

SL No.	CHARACTERISTIC	REQUIREMENT		METHOD OF TEST, REF TO	
		Type 1	Type 2	Cl No. in IS: 286-1966*	Appendix
(1)	(2)	(3)	(4)	(5)	(6)
i)	Total fatty matter, percent by mass, <i>Min</i>	38	28	15 -	
ii)	Unsaponified and unsaponifiable matter, percent by mass, <i>Max</i>	2.5	2.0	12	--
iii)	Rosin acids, percent by mass of total fatty matter, <i>Max</i>	Nil	15.0	14	—
iv)	Total free alkali (as K ₂ O), percent by mass, <i>Max</i>	0.50	0.50	-	A
v)	Free caustic alkali (as K ₂ O), percent by mass, <i>Max</i>	0.10	0.10	6 (see Note below)	—

NOTE— Modify the formula given in 6 of IS : 286-1966* as given below:

$$\text{Free caustic alkali (as K}_2\text{O) , percent by mass} = 4.7 \frac{VN}{M}$$

where

V = volume in ml of standard sulphuric acid or hydrochloric acid used,

N = normality of the acid, and

M = mass in g of the material taken for test.

*Methods of sampling and test for soaps (first revision).

5. PACKING AND MARKING

5.1 Packing — The material shall be supplied in suitable containers as agreed to between the purchaser and the supplier.

5.2 Marking — The packages shall be securely closed and marked with the following particulars:

- a) Name of manufacturer;
- b) Type and brand name of the material and recognized trade-mark, if any;
- c) Year and month of manufacture;
- d) Net mass when packed; and
- e) Batch No. or Lot No. in code or otherwise.

5.3 BIS Certification Marking

The product may also be marked with Standard Mark.

5.3.1 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.

6. SAMPLING

6.1 For this purpose 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: 286-1906*.

6.2 Number of Tests

6.2.1 Tests for the determination of characteristics given at Sl No. (i), (ii), and (v) in Table 1 shall be conducted on each of the individual samples separately.

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

6.3 Criteria for Conformity

6.3.1 For Individual Samples For each of the characteristics which have been determined on the individual samples (6.2.1) the mean ($\bar{x}$) and the range (R) of the test results shall be calculated as follows:

$$\text{Mean } (\bar{x}) = \frac{\text{the sum of test results}}{\text{number of test results}}$$

*Methods of sampling and test for soaps (first revision).

Range (R) — The difference between the maximum and the minimum value of the test results.

The lot shall be deemed as conforming to the requirement if the expression $(\bar{x} - 0.4 R)$ is greater than or equal to minimum value given in Table 1 and $(\bar{x} + 0.4 R)$ is less than or equal to maximum value given in Table 1.

6.3.2 For Composite Sample — For declaring the conformity of the 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.

7. TESTS

7.1 Tests shall be conducted as prescribed in IS: 286-1966* and in Appendix A. Reference to the relevant clauses of that standard and Appendix A is given in col 5 and 6 of Table 1 respectively.

7.2 Quality of Reagents — Unless specified otherwise, pure chemicals and distilled water (see IS : 1070-1960†) shall be employed in tests.

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

APPENDIX A

[Table 1, Sl No.(iv)]

DETERMINATION OF TOTAL FREE ALKALI

A-1. REAGENTS

A-1.1 Ethanol — 95 percent (v/v).

A-1.2 Ethanolic Potassium Hydroxide Solution 0.1 N.

A-1.3 Standard Sodium Hydroxide Solution — 1 N.

A-1.4 Standard Sulphuric Acid — 1 N.

A-1.5 Thymolphthalein Indicator — 0.1 percent in 60 percent ethanol.

A-2. PROCEDURE

A-2.1 Boil 100 ml of ethanol in a 400-ml flask under reflux, add 1 ml of thymolphthalein indicator, allow to cool to 70°C and neutralize at that temperature with ethanolic potassium hydroxide solution. Add 10 g of the

*Methods for sampling and test for soaps (first revision).

†Specification for water, distilled quality (revised).

IS:7532-1974

Range (R) - The difference between the maximum and the minimum value of the test results.

The lot shall be deemed as conforming to the requirement if the expression $(\bar{x} - 0.4 R)$ is greater than or equal to minimum value given in Table 1 and $(\bar{x} + 0.4 R)$ is less than or equal to maximum value given in Table 1.

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sample and dissolve it as quickly as possible by heating. Immediately after complete solution of the soap, add 3 ml of standard sulphuric acid and boil on a water-bath for at least 10 minutes to ensure complete removal of carbon dioxide. If the solution is colourless, cool to 70°C and titrate with standard sodium hydroxide solution until the pink colour reappears. If after boiling with acid the pink colour returns, add a further quantity of standard sulphuric acid and repeat the boiling, the titration being completed as above. The excess of standard sulphuric acid finally titrated shall be not less than 1 ml.

A-3. CALCULATION

A-3.1 Total free alkali (as K_2O), percent by mass - $\frac{56.1 (V_1 - V_2)}{M}$

where

V_1 = volume in ml of standard sulphuric acid added,

V_2 = volume in ml of standard sodium hydroxide solution required, and

M = mass in g of the sample taken for the test.

A-1.3 Standard Sodium Hydroxide Solution - 1N

A-1.4 Standard Sulphuric Acid - 1N

A-1.5 Thymolphthalein Indicator - 0.1 percent in 60 percent ethanol.

A-2 PROCEDURE

A-2.1 Boil 100 ml of ethanol in a 400-ml flask under reflux, add 1 ml of thymolphthalein indicator, allow to cool to 70°C and neutralize at that temperature with ethanolic potassium hydroxide solution. Add 10 g of the

*Methods for sampling and test for soaps (first revision).

†Specification for water, distilled quality (revised).

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