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मानक

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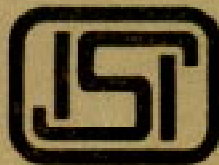


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*Indian Standard*  
SPECIFICATION FOR *DAHI*

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*Indian Standard*SPECIFICATION FOR *DAHI*

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# *Indian Standard*

## SPECIFICATION FOR *DAHI*

### 0. FOREWORD

**0.1** The Indian Standard was adopted by the Indian Standards Institution on 30 October 1980, after the draft finalized by the Dairy Products Sectional Committee had been approved by the Agricultural and Food Products Division Council.

**0.2** The organized dairies in the country have started production of fermented milk products specially *DAHI* and yoghurt particularly during winter months. Due to good digestability, large section of population in India consume fermented milk products specially *DAHI* after converting it into a refreshing beverage. The quality of *DAHI* and yoghurt depends on the starter culture used, initial quality of milk and other ingredients added.

**0.3** Indian Standard specification for fermented milk products, covering *DAHI* and yoghurt ( IS : 7035-1973 ) was published in 1973. While revising the standard the committee decided to split the standard into two separate standards, one covering *DAHI* and other covering yoghurt as these terms are generally understood and these products are commonly marketed in the country. This standard covers specification for *DAHI* and the other standard when published is expected to cover specification for yoghurt. IS : 7035 1973\* shall be withdrawn after the publication of the standard for yoghurt.

**0.3.1** This standard is being issued with a view to helping the dairies in production of good quality *DAHI* and also guiding other dairies in taking up production of these products. This standard for *DAHI* incorporates a number of modifications, namely, (a) ranges of acidity have been given, (b) different types of milk have been included, (c) cultures to be used have been made explicit, and (d) packing clause has been made more comprehensive.

**0.4** While formulating this standard, necessary consideration has been given to the relevant rules prescribed by the Government of India under the Prevention of Food Adulteration Act, 1954. This standard is, however, subject to the restrictions imposed under the Act, wherever applicable.

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\*Specification for fermented milk products.

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.

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## **1. SCOPE**

1.1 This standard prescribes the types, requirements and the methods of sampling and test for *DAHI*.

1.1.1 This standard covers *DAHI* obtained by lactic fermentation through the action of single or mixed strains of lactic acid bacteria or by lactic fermentation accompanied by alcoholic fermentation by yeast from milk with or without additions as specified under 3.2. This standard does not include milk coagulated by the addition of acids, milk coagulating enzymes, etc.

## **2. TYPES**

2.1 *DAHI* shall be of the following types:

- a) Plain, and
- b) Flavoured.

2.2 The following culture shall be used in preparing *DAHI*:

- a) *Streptococcus lactis*, *Streptococcus diacetilactis*, *Streptococcus cremoris*. Single or in combination with or without *Leuconostoc* species; and
- b) Also as above along with species of *Lactobacillus* such as, *Lactobacillus bulgaricus*, *Lactobacillus acidophilus* and *Lactobacillus casei*, and *Streptococcus thermophilus*.

## **3. INGREDIENTS**

3.1 Fermented milk shall be prepared from any class of milk ( buffalo, cow, goat or sheep, standardized, recombined, toned, double-toned, and skimmed ), pasteurized ( see IS : 6397-1971† ) or boiled. Standards for different classes of milk shall be according to the PFA Rules, 1955.

3.1.1 Milk and milk products used should be of good quality and should conform to appropriate Indian Standard specification or PFA Rules, 1955.

3.2 The following may be added to *DAHI* provided these additions do not exceed 25 percent by mass of the final product.

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

†Code for pasteurization of milk.



**3.2.1** Sugar may be added according to the requirements of the consumer.

**3.2.2** Flavouring essences shall be selected from those permitted under the PFA Rules, 1955.

**3.2.2.1** Flavoured extracts and various artificial flavours shall be pasteurized at 63°C for 30 minutes before use.

**3.2.3** Stabilizers permitted under the PFA Rules, 1955, when used, shall not exceed 0.2 percent by mass of the product.

**3.2.4** The addition of materials given in **3.2.1** and **3.2.3** may be done prior to heat treatment of the milk but materials given in **3.2.3** may be added even after partial fermentation of the milk.

## 4. REQUIREMENTS

**4.1 Hygienic Conditions** — The products shall be processed, packed, stored and distributed under hygienic conditions ( *see* IS : 2491-1972\* ).

**4.2 DAHI** shall conform to the requirements of milk fat and milk solids not fat, as laid down in PFA Rules, 1955.

**4.3 DAHI** shall have a pleasing bouquet flavour resulting from the blend of a clean delicate somewhat aromatic odour and a pronounced though clean acid taste. It should be free from the following undesirable flavours:

- a) Bitter,
- b) Coarse due to over-ripening,
- c) Flat ( lack of flavours ),
- d) Off odour,
- e) Metallic, and
- f) Yeasty.

NOTE — For definition of these terms, *see* IS : 5126 ( Part II )-1969†.

**4.4 Body and Texture** — Before shaking, it should be firm, solid and uniform with negligible whey separation.

**4.5 DAHI** shall also conform to the requirements given in Table 1.

## 5. PACKING AND MARKING

**5.1 Packing** — *DAHI* shall be filled in glass bottles or any other suitable containers and capped. Exposure to warmer temperature results in the

\*Code for hygienic conditions for food processing units ( *first revision* ).

†Glossary of general terms for sensory evaluation of foods : Part II Quality characteristics.

product becoming too sour to growth of micro-organism. Further, for maximum development of flavour and improvement of body and texture, the fermented milk products shall be cooled before despatch and maintained preferably at a temperature below 10°C.

**TABLE 1 REQUIREMENTS FOR DAHI**

( Clause 4.5 )

Sl. No.	CHARACTERISTIC	REQUIREMENT	REFERENCE TO
(1)	(2)	(3)	(4)
i)	Acidity, as lactic acid, percent by mass	0.6 to 0.8	CI 14 of IS : 1479 ( Part I )-1960*
ii)	Yeast and mould count per gram, <i>Max</i>	100	IS : 5403-1969†
iii)	Coliform count per gram, <i>Max</i>	10	IS : 5401-1969‡
iv)	Phosphatase test	Negative	IS : 8479 ( Part I )-1977§

\*Methods of test for dairy industry: Part I Rapid examination of milk.

†Method for yeast and mould count of foodstuffs.

‡Methods for detection and estimation of coliform bacteria in foodstuffs.

§Method for determination of phosphatase activity in milk and milk products: Part I Routine method.

**5.2 Marking** — The following information shall be marked legibly on each container:

- a) Name of the material;
- b) Type of the product;
- c) Class of milk used;
- d) Sweetened or unsweetened;
- e) Net content;
- f) Permitted flavouring agents, if added;
- g) Batch or code number; and
- h) Any other requirements as laid under the standard of Weights and Measures ( Packaged Commodities ) Rules, 1977.

**5.2.1** Each container may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution ( Certification Marks ) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

## 6. SAMPLING

**6.1** Representative samples of *DAHI* for testing conformity to this standard shall be drawn as described in Appendix F of IS : 4238-1967\*.

## 7. TESTS

**7.1 Quality of Reagents** — Unless specified otherwise, pure chemicals shall be employed in tests and distilled water ( *see* IS : 1070-1977† ) shall be used where the use of water as a reagent is intended.

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

**7.2** The tests shall be carried out as prescribed in appropriate clauses of Indian Standards given in col 4 of Table 1.

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\*Specification for sterilized milk.

†Specification for water for general laboratory use ( *second revision* ).

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# INDIAN STANDARDS

ON

## DAIRY PRODUCTS

IS:

- 1000-1959 Lactose commercial
- 1165-1975 Milk powder ( whole and skin ) ( *second revision* )
- 1166-1973 Condensed milk ( *first revision* )
- 1167-1965 Casein ( edible quality ) ( *revised* )
- 1547-1968 Infant milk foods ( *first revision* )
- 1656-1969 Processed cereal weaning foods ( *first revision* )
- 1806-1961 Malted milk food ( *first revision* )
- 2785-1979 Natural cheese ( hard variety ), processed cheese, processed cheese spread and soft cheese ( *first revision* )
- 2802-1964 Ice cream
- 3922-1966 Recommendations for ghee refinery
- 4070-1967 Canned RASOGOLLA
- 4238-1967 Sterilized milk
- 4421-1967 Malted skimmed milk food
- 4709-1968 Flavoured milk
- 4383-1980 *KHOA* ( *first revision* )
- 4884-1968 Sterilized cream
- 5162-1980 *CHHANA* ( *first revision* )
- 5163-1969 Sweet cream butter milk powder
- 5550-1970 *BURFI*
- 5962-1970 Sour partly skimmed milk powder
- 6387-1971 Vegetable protein infant food with milk
- 6397-1971 Code for pasteurization of milk
- 7035-1973 Fermented milk products
- 7607 ( Part I )-1975 Code of practice for keeping dairy accounts: Part I Primary milk collection units
- 7607 ( Part II )-1975 Code of practice for keeping dairy accounts: Part II Market milk plants
- 7607 ( Part III )-1975 Code of practice for keeping dairy accounts: Part III Product plants
- 7839-1975 Dried ice-cream mix
- 9617-1980 *DAHI*