

**Draft for Comments Only**

**Draft Indian Standard**  
**PACKED MATURED COCONUT WATER - SPECIFICATION**  
**ICS NO. 67.080.10**

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Processed Fruits and Vegetable Products Sectional Committee, FAD10

**FOREWORD**

(adoption clause will be added later)

Matured coconut water occupies an important place among the processed coconut products which are exported from India. There is ample scope for the development of external as well as the internal trade for this product. It is necessary to ensure the quality of the products, if the demand is to be maintained and further developed. In order to ensure maintenance of proper quality, it is necessary to have strict quality control based on specifications. It was, therefore, found necessary to formulate an Indian Standard Specification for this product.

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.

**1. SCOPE**

This standard prescribes the requirements and the methods of sampling and test for Tender Coconut water

**2 REFERENCES**

The Indian standards listed below 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:

<b>IS No</b>	<b>Title</b>
IS 2491	Basic principles of hygiene
IS 2860:1964	Methods of sampling and test for processed fruits and vegetables
IS 3815:1993	Method for testing total solids
IS 3881 : 1993	Tomato Juice - Specification

IS 5401 (Part 1) : 2002 /ISO 4831 : 1991	Microbiology - General Guidance for the Enumeration of Coliforms - Part 1 : Colony Count Technique
IS 5402 : 2002 /ISO 4833 : 1991	Microbiology - General Guidance for the Enumeration of Microorganisms - Colony Count Technique at 30°C
IS 5403 : 1999 IS 5887 (Part 1): 1976	Method for Yeast and Mould Count of Foodstuffs Methods for Detection of Bacteria Responsible for Food Poisoning - Part I: Isolation, Identification and Enumeration of Escherichia Coli
IS 5887 (Part 2): 1976	Methods for detection of bacteria responsible for food poisoning: Part 2 Isolation, identification and enumeration of STAPHYLOCOCCUS AUREUS and faecal streptococci
IS 5887 (Part 3) : 1999 /ISO 6579 : 1993	Methods for Detection of Bacteria Responsible for Food Poisoning - Part 3 : General Guidance on Methods for the Detection of Salmonella
IS 7585 : 1995 IS 9396 (Part 1) : 1987	Wines - Methods of Analysis  Tinplate requirements ( <i>first revision</i> )
(Part 2) : 1987 IS 11764 : 2005 /ISO 2911 : 2004 IS 11984:1986	Sizes and general requirements ( <i>first revision</i> ) Sweetened Condensed Milk - Determination of Sucrose Content - Polarimetric Method Glass bottle for free flowing liquids

### **3 REQUIREMENTS**

#### **3.1 Description**

The term matured coconut water shall mean exclusively the natural aqueous liquid endosperm of the 12 month old coconut without addition of the solid endosperm

#### **3.2 Hygienic Conditions**

The material shall be manufactured and packed under hygienic conditions (IS 2491) The basic principles of hygiene underlining the technical advice in this code should be applied with appropriate modification.

**3.3** The product shall also conform to the requirements given in Table 1

#### **3.4 Food Additives**

Food Additive namely Niacin is permitted within the restrictions and use prescribed under Part XIX Use of food additives in food products under the PFA Act 1955.

#### **3.5 Hygiene**

It is recommended that the product be prepared in accordance with the GMP and HACCP standards.

**3.6** The pesticide residues, heavy metals, aflatoxins etc., if any in the product shall not exceed the limit as prescribed in *Prevention of Food Adulteration Act, 1954* and the Rules made

thereunder. Additionally, *Prevention of Food Adulteration Act, 1954* and *Standards of Weights and Measures Act, 1977* requirements wherever applicable has to be complied with.

**Table 1 Specifications for matured coconut water**  
(Clause 3.3)

<b>Chemical/Physical Characteristic</b>	<b>Requirement</b>	<b>Method of test</b>
Total solids	3.9 to 5.5 g /100ml	IS 13815:1993
Reducing sugar	0.23 -1.30 g /100ml	Cl. 7 of IS 7585: 1995
Sucrose	0.98 - 3.15 g /100ml	IS 11764 : 2005
Total sugar	1.70 - 3.38 g /100ml	AOAC 17 <sup>th</sup> edn,2000, Official Method 925.35
Ash	0.5 - 0.84 g /100ml	AOAC 17 <sup>th</sup> edn,2000, Official Method 930.35
pH	5.2	IS 3881 : 1993
Total, Plate Count	5000/gm max.	IS 5402: 2002
Yeast & mould	50/gm max	IS 5403:1999
E. coli	10 per g	IS 5887(Part 1): 1976
Coliforms	Nil	IS 5401 (Part 1): 2002
Salmonella	Nil	IS 5887 (Part 3): 1999
Staphylococci	10 per g	IS 5887 (Part 2): 1976

#### **4 SAMPLING**

Unless otherwise agreed to between the purchaser and the supplier sampling for lot acceptance shall be done in accordance with Annex 3 of IS 2860.

#### **5 PACKING AND MARKING**

##### **5.1 Packing**

Tender coconut water shall be packed either in hermetically sealed open top sanitary cans (IS 9396) or in food grade plastic material or glass bottles (IS 11984) or flexible packs or aseptic packages.

##### **5.2 Marking**

Each container shall be marked with the following particulars:

- a) Name of the product;
- b) Brand name, if any;
- c) Name and address of manufacturer;
- d) Batch or code number;
- e) Net quantity;
- f) List of ingredients in descending order of proportion;
- g) Month and year of manufacture;
- h) The words 'Best before ..... (month and year to be indicated)'; and

j) Any other information required under the *Standards of Weights and Measures (Packaged Commodities) Rules, 1977*, *Prevention of Food Adulteration Rules, 1955*, and *Fruit Products Order, 1955*.

### **5.3 BIS Certification Marking**

The product may also be marked with the Standard Mark.

**5.3.1** The use of the Standard Mark is governed by 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.