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“Step Out From the Old to the New”

IS 1908 (2008): Spices and Condiments - Ginger, Whole and Ground [FAD 9: Spices and Condiments]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

मसाले एवं मसाले — अदरक, साबुत और पिसा हुआ — विशिष्टि
(तीसरा पुनरीक्षण)

Indian Standard

SPICES AND CONDIMENTS — GINGER, WHOLE
AND GROUND — SPECIFICATION
(*Third Revision*)

ICS 67.220.10

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

FOREWORD

This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Spices and Condiments Sectional Committee had been approved by the Food and Agriculture Division Council.

Spices and condiments are in common use in this country. Some of them are also exported in considerable quantities. Ginger is one of the important spices exported from India.

This standard was originally published in 1961 and subsequently revised in 1980 and then in 1993 for updating the standard particularly incorporating the requirement of volatile oil content. This revision is being brought about to update and align the requirements of ginger, whole and ground with ISO Standard on the subject, ISO 1003 : 2008 'Spices — Ginger — Specification' and *Prevention of Food Adulteration Rules*, 1955. Due consideration has also been given to the *Standard of Weights & Measures (Packaged Commodities) Rules*, 1977. However, this standard is subject to restrictions imposed under both the rules, wherever applicable.

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

**SPICES AND CONDIMENTS — GINGER, WHOLE
AND GROUND — SPECIFICATION**

(Third Revision)

1 SCOPE

This standard prescribes the requirements and methods of test and sampling for ginger, *Zingiber officinale* Rosc (Sonth), whole and ground.

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:

<i>IS No.</i>	<i>Title</i>
460 (Part 1): 1985	Test sieves : Wire cloth test sieves (<i>third revision</i>)
(Part 2): 1985	Perforated plate test sieves (<i>third revision</i>)
1797: 1985	Methods of test for spices and condiments (<i>second revision</i>)
2860: 1964	Method of sampling and test for fruits and vegetables
5887 (Part 3): 1999	Methods for detection of bacteria responsible for food poisoning : Part 3 General guidance on methods for the detection of <i>salmonella</i> (<i>second revision</i>)
13145: 1993	Spices and condiments — Methods of sampling (<i>first revision</i>)

3 REQUIREMENTS**3.1 Description**

The ginger, whole, shall be the rhizomes of *Zingiber officinale* Rosc in pieces irregular in shape and size not less than 20 mm in length or in small cut pieces, pale brown in colour and fibrous with peel not entirely removed, washed and dried in the sun. The material may be garbled by removing pieces that are too light

and it may also be lime bleached (*see* 4.2). The dried rhizomes may also be ground into powder.

3.1.1 Pure lime shall be used for bleaching of ginger.

3.1.2 The material shall be free from added colours.

3.2 Taste and Flavour

The taste and flavour of ginger, whole or ground, shall be characteristic and wholesome. The material shall not have rancid or bitter taste or musty odour.

3.3 Freedom from Moulds and Insects

The ginger, whole or ground, shall be free from visible moulds and insect infestation.

3.4 Extraneous Matter

The proportion of extraneous matter in ginger, whole shall not exceed 1.0 percent. Exhausted or spent ginger shall be considered as extraneous matter. The proportion of extraneous matter shall be determined in accordance with 4 of IS 1797.

3.5 Insect Damaged Matter

This includes ginger rhizome pieces exhibiting definite evidence of insect feeding or containing one or more whole insects or equivalent webbing or excreta. The proportion of insect damaged matter shall be not more than 1 percent by mass when determined by the method given in 4.1 of IS 1797 except that insect damaged ginger rhizome pieces are to be separated.

3.6 Fineness of Ground Ginger

The ginger shall be ground to such a fineness that the whole of the material passes through 500 micron sieve [*see* IS 460 (Parts 1 and 2)].

3.7 The ginger, ground, shall also comply with the requirements given in Table 1.

4 GRADES OF GINGER, WHOLE

4.1 The ginger, whole, may be graded before packing (*see* 5.1.1).

4.2 There shall be six grades of ginger, whole. The designations of the grades and their requirements

Table 1 Requirements for Ginger, Ground
(Clauses 3.7 and 7)

Sl No. (1)	Characteristic (2)	Requirement (3)	Method of Test, Ref to (4)
i)	Moisture, percent by mass, <i>Max</i>	12.0	9 of IS 1797
ii)	Total ash, percent by mass, <i>Max</i>	7.0	6 of IS 1797
iii)	Water soluble ash, <i>Min</i>	1.9	7 of IS 1797
iv)	Acid insoluble ash, percent by mass, <i>Max</i>	1.0	8 of IS 1797
v)	Cold water soluble extract, percent by mass, <i>Min</i>	11.4	11 of IS 1797
vi)	Volatile oil, percent by mass, <i>Min</i>	1.5	15 of IS 1797
vii)	Lead (Pb), ppm, <i>Max</i>	10.0	14 of IS 2860
viii)	Calcium (as CaO), percent by mass, <i>Max</i>	1.0	12 of IS 1797
ix)	Alcohol soluble extract, percent by mass, <i>Min</i>	5.1	10 of IS 1797
x)	<i>Salmonella</i> (in 25g)	Absent	IS 5887 (Part 3)

are given in Table 2.

5 PACKING AND MARKING

5.1 Packing

5.1.1 Ginger, Whole

The ginger, whole, shall be packed in sound double jute bags or in single jute bags with waterproof lining. The bags may be lined inside with cloth or with LDPE.

5.1.2 Ginger, Ground

The ginger, ground, shall be packed in sealed clean and sound tin plate or glass containers or paper cartons properly lined with waterproof paper or in moisture-proof bags made of a material which does not impart any smell to the ginger, ground.

5.1.2.1 A suitable number of such containers shall be packed in wooden or cardboard cases.

5.2 Marking

5.2.1 Ginger, Whole

The following particulars shall be marked or labelled on each jute bag:

- Name of the material, and the trade-name or brand name, if any;
- Name and address of the manufacturer/packer;
- Batch or Code number;
- Net mass;
- Grade of the material, if graded;

f) Instruction for storage;

g) Best before date (Month and Year to be given by the manufacturer); and

h) Any other requirements as given under the *Standards of Weights and Measures (Packaged Commodities) Rules, 1977* and *Prevention of Food Adulteration Act, 1955* and Rules.

5.2.2 Ginger, Ground

The particulars in 5.2.1 (a) to (h) shall be marked on each container and on each wooden or cardboard case. If glass containers are used, the words 'Glass with Care' shall be marked on each case.

6 SAMPLING

6.1 Representative samples of the material shall be drawn and tested for conformity to this specification as prescribed in IS 13145.

6.2 Samples of ginger, whole, shall be ground so that the whole of the material passes through 500 micron sieve [see IS 460 (Parts 1 and 2)]. The material so ground shall be used for the determination of calcium (see Table 2).

7 METHOD OF TEST

The samples of ginger shall be tested for ascertaining conformity of the material to the requirements of this specification by the methods of test referred to in 3 and col 4 of Table 1.

Table 2 Grade Designations of Ginger, Whole and Their Requirements
(Clauses 4.2 and 6.2)

Sl No.	Grade Designation	Characteristics	Size of Rhizome	Extraneous Matter Percent, <i>Max</i>	Very Light Pieces Percent by Mass, <i>Max</i>	Lime as CaO Percent, <i>Max</i>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
i)	Garbled, non-bleached Calicut (NGK)	In pieces irregular in shape and size, pale brown in colour, fibrous with peel not entirely removed, light pieces removed by garbling	Not less than 20 mm in length	1.0	0	—
ii)	Ungarbled, non-bleached Calicut (NUGK)	Pale brown in colour, fibrous with peel not entirely removed	Small cut pieces of less than 20 mm in length	1.0	10	—
iii)	Garbled, non-bleached Cochin (NGC)	In pieces irregular in shape and size, pale brown in colour, fibrous with peel not entirely removed, light pieces removed by garbling	Not less than 20 mm in length	1.0	0	—
iv)	Ungarbled, non-bleached Cochin (NUGC)	In pieces irregular in shape and size, pale brown in colour, fibrous with peel not entirely removed	Small cut pieces of less than 20 mm in length	1.0	10	—
v)	Garbled, bleached Cochin (BGC)	In pieces irregular in shape and size, colour fibrous with peel not entirely removed, lime bleached, light pieces removed by garbling	Not less than 20 mm in length	1.0	0	1.0
vi)	Ungarbled, bleached Cochin (BUGC)	In pieces irregular in shape and size, fibrous with peel not entirely removed, lime bleached	Small cut pieces of less than 20 mm in length	1.0	10	—

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Amendments Issued Since Publication

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