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IS 2447 (2010): Spices and Condiments - Cumin (SAFED JEERA), Whole [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
मिर्च एवं मसाले — सफेद जीरा, साबुत — विशिष्टि
(तीसरा पुनरीक्षण)

Indian Standard
SPICES AND CONDIMENTS — CUMIN (*SAFED JEERA*)
WHOLE — SPECIFICATION
(*Third Revision*)

ICS 67.220.10

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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.

Cumin (*Safed Jeera*) is one of the important and commonly used materials for spicing in the Indian dietary. Cumin is also one of the commodities exported from India.

This standard was originally published in 1963 and first revised in 1980 when the description of cumin was elaborated and the three grades were specified to fall in line with the international practices. In the second revision in 1993, the requirements of extraneous matter and moisture content in cumin seeds were upgraded in line with international requirements. In this revision, the requirements have been updated to align with the standards for cumin laid down under the *Prevention of Food Adulteration Rules, 1955*. The categorization of cumin into various grades has been removed and only a single specification has been prescribed for cumin in this standard.

Due consideration has also been given to the *Prevention of Food Adulteration Rules, 1955* and the *Standards of Weights and Measures (Packaged Commodities) Rules, 1977*. However, this standard is subject to restrictions imposed under these 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 — CUMIN (*SAFED JEERA*)
WHOLE — SPECIFICATION
(Third Revision)

1 SCOPE

This standard prescribes the requirements and methods of test for cumin, *Cuminum cyminum* L. (*Safed Jeera*) in the whole form.

2 REFERENCES

The following standards contain provisions which through reference in this text, constitute provision 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>
1070 : 1992	Reagent grade water (<i>third revision</i>)
1797 : 1985	Methods of test for spices and condiments (<i>second revision</i>)
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 <i>salmonella</i> (<i>second revision</i>)
13145 : 1993	Spices and condiments — Methods of sampling (<i>first revision</i>)
14216 : 1994	Code for hygienic conditions for spices and condiments processing units

3 DEFINITIONS

For the purpose of this standard, the following definitions shall apply.

3.1 Extraneous Matter — For the purpose of this standard, extraneous matter is considered to be:

- a) all matter which does not constitute cumin fruits, in particular all other seeds; and
- b) all other extraneous animal, vegetable and mineral matter.

3.2 Damaged, Discoloured and Weeviled Seeds — This includes cumin seeds that are damaged or discoloured so as to affect the quality of the material

and also includes seeds showing signs of bores in the seeds as a result of their having been eaten up by weevils or insects.

3.3 Shriveled and Immature Seeds — These are the proportion of seeds that have not been properly developed.

4 REQUIREMENTS**4.1 Description**

Cumin, whole, shall be the dried seeds of *Cuminum cyminum* L. consisting of two elongated mericarps, which remained joined, measuring approximately 5 mm in length and 1 mm in width. Each mericarp, of a grey ochre-colour, bears five light coloured primary ribs, and four wider secondary ribs of a deeper shade.

4.2 Taste and Flavour

The cumin, whole, shall have the characteristic pleasant taste, flavour and aroma, and shall be free from musty odour. It shall be free from added colouring matter.

4.3 Freedom from Moulds and Insects

Cumin, whole, shall be free from visible insects and moulds, and shall be practically free from dead insects, insect fragments and contamination by rodents, visible to the naked eye (corrected, if any, for abnormal vision), with such magnification as may be necessary, in any particular case. In case the magnification exceeds X 10, this fact should be stated in the test report. The proportion of insect damaged matter shall not exceed 1 percent (*m/m*).

4.4 Cumin, whole, shall also comply with the requirements given in Table 1.

4.5 Hygienic Conditions

The cumin shall be processed and packed under hygienic conditions (*see* IS 14216).

4.6 Pesticide residues and metallic contaminants in the product shall not exceed the limits as prescribed in the *Prevention of Food Adulteration Act, 1954* and the Rules made thereunder.

5 PACKING AND MARKING**5.1 Packing**

Cumin shall be packed in clean, sound and dry container made of metal glass, food grade polymers, wood or jute bags. The wooden boxes or jute bags shall be suitably lined with moisture-proof lining which does not impart any foreign smell to the product. The packing material shall be free from any fungal or insect infestation and should not impart any foreign smell. Each container shall be securely closed and sealed.

5.2 Marking

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

- a) Name of the material, trade-name or brand name, if any;
- b) Name and address of the manufacturer/packer;
- c) Batch or Code number;
- d) Net mass;
- e) Date of packing;
- f) Year of harvest;

- g) Best before (month/year); and
- h) Any other marking as required under the *Standards of Weights and Measures (Packaged Commodities) Rules, 1977* and the *Prevention of Food Adulteration Rules, 1955*.

6 SAMPLING

Representative samples shall be drawn and conformity of the product in the lot to the requirements of this standard shall be determined in accordance with the method given in IS 13145.

7 METHODS OF TEST

The samples of cumin shall be tested for ascertaining conformity of the material to the requirements in accordance with the relevant clauses given in col 4 and col 5 of Table 1.

8 QUALITY OF REAGENTS

Unless specified otherwise, pure chemicals and distilled water (*see* IS 1070) shall be employed in tests.

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

Table 1 Requirements for Cumin, Whole
(Clauses 4.4 and 7)

Sl No.	Characteristics	Requirement	Method of Test, Ref to	
			Clause of IS 1797	IS No.
(1)	(2)	(3)	(4)	(5)
i)	Extraneous matter, percent by mass, <i>Max</i>	3.0	4	—
ii)	Proportion of broken fruits (Damaged, discoloured, shriveled and immature seeds), percent by mass, <i>Max</i>	5.0	4	—
iii)	Moisture, percent by mass, <i>Max</i>	10.0	9	—
iv)	Total ash on dry basis, percent by mass, <i>Max</i>	9.5	6	—
v)	Acid insoluble ash on dry basis, percent by mass, <i>Max</i>	3.0	8	—
vi)	Volatile oil on dry basis, percent by mass, <i>Min</i>	1.5	15	—
vii)	Non-volatile ether extract, percent by mass, <i>Min</i>	15	14	—
viii)	<i>Salmonella</i> (in 25 g)	Absent	—	IS 5887 (Part 3)

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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