

इंटरनेट

मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 7750 (1975): Cashew Kernels [FAD 10: Processed Fruits and Vegetable Products]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE



IS : 7750 - 1975
(Reaffirmed 1992)

Indian Standard
SPECIFICATION FOR
CASHEW KERNELS

(Second Reprint MAY 1998)

UDC 634.573 : 620.11

© Copyright 1975

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

Indian Standard

SPECIFICATION FOR CASHEW KERNELS

Fruits and Vegetables Sectional Committee, AFDC 23

Chairman

DR P. K. KYMAL

Representing

Ministry of Agriculture & Irrigation (Department of Food)

Members

SHRI KARTAR SINGH ARORA

Department of Agriculture, Government of Haryana, Chandigarh

SHRI NARAIN DASS DUDEJA (*Alternate*)

SHRI B. S. BHATIA

Defence Food Research Laboratory, Mysore

SHRI L. R. RAMANATHAN (*Alternate*)

SHRI D. S. CHADHA

Central Committee for Food Standards (Ministry of Health), New Delhi

SHRI B. P. CHAKLADAR

Department of Agriculture, Government of West Bengal, Calcutta

DR B. CHOUDHURY

Indian Agricultural Research Institute, New Delhi

DR J. C. ANAND (*Alternate*)

BRIG S. K. DAS

Technical Standardization Committee (Foodstuffs) (Ministry of Agriculture & Irrigation), New Delhi

SHRI J. K. JAGTIANI (*Alternate*)

SHRI DAYA NAND

Central Fruit Products Advisory Committee, (Ministry of Agriculture & Irrigation), New Delhi

DR R. C. SINHA (*Alternate*)

SHRI K. C. DE

The Metal Box Co of India Ltd, Calcutta

DR V. V. KARNIK (*Alternate*)

DEPUTY DIRECTOR OF

Department of Agriculture, Government of Tamil Nadu, Madras

AGRICULTURE (MARKETING)

THE HORTICULTURIST (*Alternate*)

SHRI S. D. DEWAN

Ministry of Agriculture & Irrigation (Department of Agriculture)

SHRI S. L. KATYAL

Indian Council of Agricultural Research, New Delhi

DR R. N. SINGH (*Alternate*)

SHRI B. C. MATHUR

National Co-operative Development Corporation, New Delhi

SHRI N. K. MURALIDHARA RAO

Directorate of Marketing & Inspection (Ministry of Agriculture & Irrigation), Faridabad

DR B. S. SAXENA (*Alternate*)(*Continued on page 2*)

© Copyright 1975

BUREAU OF INDIAN STANDARDS

This publication is protected under the *Indian Copyright Act* (XIV of 1957) and reproduction in whole or in part by any means except with written permission of the publisher shall be deemed to be an infringement of copyright under the said Act.

(Continued from page 1)

<i>Members</i>	<i>Representing</i>
DR R. L. NAGPAL	Department of Agriculture, Government of Maharashtra, Bombay
DEPUTY DIRECTOR OF AGRICULTURE (HORTICULTURE) (Alternate)	
DR A. G. NAIK-KURADE	All India Food Preservers' Association, New Delhi
SHRI M. S. KOHLI (Alternate)	Development Council for Food Processing Industries (Directorate General of Technical Development), New Delhi
SHRI S. RAMASWAMY	Punjab Agricultural University, Ludhiana
DR K. S. RANDHAWA	Central Food Technological Research Institute (CSIR), Mysore
DR G. S. NIJJAB (Alternate)	Directorate of Supplies & Transport, Army Headquarters (Ministry of Defence)
DR L. V. L. SASTRY	Indian Institute of Packaging, Bombay
SHRI V. B. DALAL (Alternate)	Processed Foods Export Promotion Council, New Delhi
COL K. SEETARAM	Directorate of Fruit Utilization, Government of Uttar Pradesh, Ranikhet
LT-COL O. P. KAPUR (Alternate)	Export Promotion Cell, Ministry of Agriculture & Irrigation
SHRI S. R. SHETTY	Director General, ISI (Ex-officio Member)
SHRI S. M. NEMBHANI (Alternate)	
SHRI P. S. SRINIVASAN	
SHRI B. K. IYENGAR (Alternate)	
DR S. S. TEOTIA	
DR S. K. BOSE (Alternate)	
SHRI J. C. VERMA	
SHRI T. PURNANANDAM, Deputy Director (Agri & Food)	
<i>Secretary</i>	
SHRI V. S. MATHUR Deputy Director (Agri & Food), ISI	

Dry and Dried Fruits Subcommittee, AFDC 23 : 7

<i>Convener</i>	
DR B. S. SAXENA	Directorate of Marketing & Inspection (Ministry of Agriculture & Irrigation), Faridabad
<i>Members</i>	
ADDITIONAL DIRECTOR OF AGRICULTURE	Department of Agriculture, Government of Kerala, Trivandrum
AGRICULTURAL MARKETING OFFICER (Alternate)	
DR K. L. CHADHA	Institute of Horticultural Research, Bangalore
SHRI MOHD AKBAR DAR	Department of Horticulture, Government of Jammu & Kashmir, Shalimar
SHRI HIRA LAL KAUL (Alternate)	

(Continued on page 9)

Indian Standard

SPECIFICATION FOR CASHEW KERNELS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 31 July 1975, after the draft finalized by the Fruits and Vegetables Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 Cashew kernels are extracted from cashew nuts by roasting, shelling and peeling. Extracted kernels are then graded.

0.3 The total area under cashew cultivation in India is about 500 000 hectares. An additional area of 250 000 hectares is expected to be brought under cultivation in the near future, 95 percent of total output of cashew kernels is exported, major importers being USA, USSR, Western Europe and Australia. For this export-oriented industry, the need for quality control and preshipment inspection was realized as early as 1963, when preshipment inspection was introduced compulsorily. For the purpose, a grading scheme was evolved and this is now being considered for compiling an ISO standard through its ISO/TC 34/SC 3/WG 4 Dry and Dried Fruits.

0.4 This standard has, therefore, been prepared to stimulate international thinking vis-a-vis consolidation of India's viewpoint in the matter.

0.5 The international trade of cashew kernels is still conducted in FPS units. In this standard, therefore, metric as well as FPS units have been given. It is hoped that with the adoption of metric units by importing countries, FPS units would be deleted from this standard at an early date.

0.6 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 specifies requirements and methods of sampling and test for kernels obtained from cashew nuts (*Anacardium occidentale* Linnaeus).

*Rules for rounding off numerical values (revised).

2. REQUIREMENTS

2.1 General Characteristics — Cashew kernels shall be obtained through roasting, shelling and peeling cashew nuts (*Anacardium occidentale* Linnaeus). The kernels shall be reasonably dry. They shall have the characteristic shape. They may be either scorched or unscorched and in the form of wholes or pieces.

2.2 Freedom from Moulds, Insects, etc — Cashew kernels should be free from living insects and moulds and should be practically free from dead insects, insect fragments and rodent contamination visible to the naked eye (corrected if necessary, for abnormal vision) with such magnification as may be necessary in any particular case. If the magnification exceeds $\times 10$, this fact should be stated in test report.

2.3 Extraneous Matter — Cashew kernels should be practically free from extraneous matter, such as stones, dirt or any other foreign matter.

2.4 Grades — The grade designations, trade names and characteristics of cashew kernels are given in Appendix A.

3. PACKING AND MARKING

3.1 Packing

3.1.1 Cashew kernels should be packed in new, clean, dry and leak-proof containers and the containers shall be securely closed and sealed in such a manner that the cashew kernels remain in an inert atmospheric conditions inside the container.

3.2 Marking

3.2.1 The following particulars should be marked or labelled on each container:

- a) Name of the material;
- b) Name and address of the packer/manufacturer;
- c) Net mass;
- d) Grade of the material;
- e) Name of the country, where packed; and
- f) Any other marking required by the purchaser.

4. SAMPLING

4.1 Representative samples of the material for testing conformity to this specification shall be drawn according to the method given in Appendix E of IS : 4624-1968*.

*Specification for dehydrated peas.

5. METHODS OF TEST

5.1 Samples of cashew kernels should be tested for conformity with the requirements of this specification by visual examination. In respect of grades W 180 to W 500 (see **A-1**), the count should be checked by weighing a kilogram or pound of the material and counting the kernels. Percentage of pieces and kernels of the next lower grade, if any, should also be ascertained and recorded. In respect of grades B to DS (see **A-4** to **A-6**) sieving test using the sieve sizes specified in the relevant grade should be conducted and the percentage of the material not conforming to the relevant grade should be checked with the tolerance limit (see Note under **A-1**).

APPENDIX A

(Clause 2.4)

GRADE DESIGNATIONS, TRADE NAMES AND CHARACTERISTICS OF CASHEW KERNELS

A-1. CASHEW KERNELS (WHOLE)

Sl No.	GRADE DESIGNATION	NUMBER OF KERNELS PER kg OR lb (See 0.5)	CHARACTERISTICS
(1)	(2)	(3)	(4)
i)	W 180	265 to 395 (120 to 180)	Cashew kernels shall have the characteristic shape, shall be white, pale ivory or light ash in colour; shall be reasonably dry and free from damaged kernels and black or brown spots. They shall be completely free from rancid kernels. The kernels shall be completely free from testa.
ii)	W 210	440 ,, 465 (200 ,, 210)	
iii)	W 240	485 ,, 530 (220 ,, 240)	
iv)	W 280	575 ,, 620 (260 ,, 280)	
v)	W 320	660 ,, 705 (300 ,, 320)	
vi)	W 400	770 ,, 880 (350 ,, 400)	
vii)	W 450	880 ,, 990 (400 ,, 450)	
viii)	W 500	990 ,, 1100 (450 ,, 500)	

NOTE — Broken kernels and kernels of the next lower grade, if any, shall not together exceed 5 percent by weight at the time of packing.

A-2. SCORCHED CASHEW KERNELS (WHOLE)

Sl No.	GRADE DESIGNATION	TRADE NAME	CHARACTERISTICS
(1)	(2)	(3)	(4)
i)	SW	Scorched wholes	Cashew kernels shall have the characteristic shape, shall be reasonably dry and free from damaged kernels and black spots and testa. They shall be completely free from rancid kernels. The kernels may be light brown, light ivory, light ash or deep ivory in colour due to scorching as a result of overheating.

NOTE — Broken kernels and kernels of the next lower grade, if any, shall not together exceed 5 percent by weight at the time of packing.

A-3. DESSERT CASHEW KERNELS (WHOLE)

SL No.	GRADE DESIGNATION	TRADE NAME	BLEMISH	CHARACTERISTICS
(1)	(2)	(3)	(4)	(5)
i)	SSW	Scorched wholes second or scorched wholes IA	Slightly shriveled kernels	Cashew kernels shall have the characteristic shape, shall be reasonably dry and free from testa. Slightly scorched kernels and kernels with slight speckling and discolouration permitted. They shall be completely free from rancid kernels. The kernels may also be immature. The kernels may be light brown, light blue or light ivory in colour due to scorching.
ii)	DW	Dessert wholes		Cashew kernels shall have the characteristic shape, shall be reasonably dry and free from testa. Scorched, discoloured, speckled and shriveled kernels permitted. Rancid kernels not permitted. The kernels may show deep black spots.

NOTE — Broken kernels or kernels of the next lower grade, if any, shall not together exceed 5 percent by weight at the time of packing.

A-4. CASHEW KERNELS (WHITE PIECES)

SL No.	GRADE DESIGNATION	TRADE NAME	DESCRIPTION	CHARACTERISTICS
(1)	(2)	(3)	(4)	(5)
i)	B	Butts	Kernels broken crosswise and naturally attached	Cashew kernels shall be white, pale ivory or light ash in colour; reasonably dry and free from damaged kernels and black spots. They shall be completely free from rancid kernels. The pieces shall be completely free from testa.
ii)	S	Splits	Kernels split naturally lengthwise	do
iii)	LWP	Large white pieces	Kernels broken into more than two pieces and not passing through a 4.75-mm IS Sieve (see IS : 460-1962*). NOTE — Equivalent to 4 mesh ASTM or 16 SWG sieves.	do

*Specification for test sieves (revised).

SL No.	GRADE DESIGNATION	TRADE NAME	DESCRIPTION	CHARACTERISTICS
(1)	(2)	(3)	(4)	(5)
iv)	SWP	Small white pieces	Broken kernels smaller than those described as LWP but not passing through a 2·80-mm IS Sieve (<i>see</i> IS : 460-1962*) NOTE — Equivalent to 6 mesh BS or 20 SWG sieves.	Cashew kernels shall be white, pale ivory or light ash in colour and shall be reasonably dry and free from damaged kernels and black spots. They shall be completely free from rancid kernels. The pieces shall be completely free from testa.
v)	BB	Baby bits	Plomules and broken kernels smaller than those described as SWP but not passing through a 1·70-mm IS Sieve (<i>see</i> IS : 460-1962*) NOTE — Equivalent to 10 mesh BS or 24 SWG sieves.	do

NOTE — Up to 5 percent by weight of the next lower grade or pieces at the time of packing.

A-5. CASHEW KERNELS (SCORCHED PIECES)

SL No.	GRADE DESIGNATION	TRADE NAME	DESCRIPTION	CHARACTERISTICS
(1)	(2)	(3)	(4)	(5)
i)	SB	Scorched butts	Kernels broken crosswise and naturally attached	Cashew kernels shall be reasonably dry and free from damaged kernels, black spots and testa. They shall be free from rancid kernels. The pieces may be light brown or deep ivory in colour due to scorching as a result of overheating.
ii)	SS	Scorched splits	Kernels split naturally lengthwise	do
iii)	SP	Scorched pieces	Kernels broken into pieces and not passing through a 4·75-mm IS Sieve (<i>see</i> IS : 460-1962*)	do
iv)	SSP	Scorched small pieces	Broken kernels smaller than those described as SP but not passing through a 2·80-mm IS Sieve (<i>see</i> IS : 460-1962*)	do

NOTE — Up to 5 percent by weight of the next lower grade or pieces at the time of packing.

*Specification for test sieves (*revised*).

A-6. DESSERT CASHEW KERNELS (PIECES)

Sl No.	GRADE DESIGNATION	TRADE NAME	DESCRIPTION	BLEMISH	CHARACTERISTICS
(1)	(2)	(3)	(4)	(5)	(6)
i)	SPS	Scorched pieces seconds or scorched pieces IA	Kernels broken into pieces but not passing through a 4.75-mm IS Sieve (<i>see</i> IS : 460-1962*)	Pieces of shrivelled kernels. May be deformed due to immature nuts and black spots	Cashew kernels shall be reasonably dry and free from testa. Scorched pieces with surface speckling and discolouration permitted. The kernels may be light brown, deep ivory or light to deep blue in colour. May be deformed due to immature nuts and may have spots. They shall be free from rancid kernels.
ii)	DP	Dessert pieces	Kernels broken into pieces but not passing through a 4.75-mm IS Sieve (<i>see</i> IS : 460-1962*)	More shrivelled than those described as SPS and deeply scorched	Cashew kernels shall be reasonably dry and free from testa. Scorched pieces may have surface speckling and discolouration. The kernels may be light brown, deep ivory or light to deep blue in colour. May be deformed due to immature nuts and may have spots. They shall be free from rancid kernels.
iii)	DSP	Dessert small pieces	Kernels of the same description as, but smaller than DP and not passing through a 2.80-mm IS Sieve (<i>see</i> IS : 460-1962*)	—	do
iv)	DB	Dessert butts	Kernels broken crosswise and naturally attached	—	do
v)	DS	Dessert splits	Kernels split naturally lengthwise	—	do

NOTE — Up to 10 percent by weight of the next lower grade at the time of packing.

*Specification for test sieves (*revised*).

(Continued from page 2)

<i>Members</i>	<i>Representing</i>
SHRI O. P. DHAMITIA	Export Inspection Council of India, Calcutta
SHRI R. NARASIMHAM (<i>Alternate</i>)	
SHRI IQBAL SINGH DHINGRA	Upper India Exporters' Association, New Delhi
SHRI R. C. MEHTA (<i>Alternate</i>)	
DIRECTOR	Directorate of Arecanut and Spices Development, Calicut
SHRI HARIBANS SINGH	Department of Agriculture, Government of Himachal Pradesh, Simla
SHRI R. S. RANA (<i>Alternate</i>)	
JOINT DIRECTOR	Central Plantation Crops Research Institute, Mysore
SHRI S. L. KATYAL	Indian Council of Agricultural Research, New Delhi
SHRI S. KUPPUSWAMY	Central Food Technological Research Institute (CSIR), Mysore
SHRI K. C. NAIR	Peirce Leslie India Limited, Mangalore
SHRI M. R. RAMACHANDRAN (<i>Alternate</i>)	
SHRI K. JANARDHANAN PILLAI	The Cashew Export Promotion Council, Ernakulam
SHRI P. GANGADEARAM PILLAI (<i>Alternate</i>)	
SHRI V. V. V. RAJENDRAN	Virudhunagar Chamber of Commerce & Industry, Virudhunagar
SECRETARY	Central Committee of Food Standards (Ministry of Health), New Delhi
DR R. L. SINGH	Directorate of Fruit Utilization, Government of Uttar Pradesh, Ranikhet
SHRI T. M. VENKATARAMAN	Directorate of Cashew Development, Calicut
SHRI L. KRISHNASWAMY (<i>Alternate</i>)	

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones: 323 0131, 323 3375, 323 9402

Fax : 91 11 3234062, 91 11 3239399, 91 11 3239382

Telegrams : Manaksanstha
(Common to all Offices)

Telephone

Central Laboratory:

Plot No. 20/9, Site IV, Sahibabad Industrial Area, Sahibabad 201010

8-77 0032

Regional Offices:

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002 323 76 17

*Eastern : 1/14 CIT Scheme VII M, V.I.P. Road, Maniktola, CALCUTTA 700054 337 86 62

Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022 60 38 43

Southern : C.I.T. Campus, IV Cross Road, CHENNAI 600113 235 23 15

† Western : Manakalaya, E9, Behind Marol Telephone Exchange, Andheri (East),
MUMBAI 400093 832 92 95

Branch Offices:

'Pushpak', Nurmohamed Shaikh Marg, Khanpur, AHMEDABAD 380001 550 13 48

‡ Peenya Industrial Area, 1st Stage, Bangalore-Tumkur Road,
BANGALORE 560058 839 49 55

Gangotri Complex, 5th Floor, Bhadbhada Road, T.T. Nagar, BHOPAL 462003 55 40 21

Plot No. 62-63, Unit VI, Ganga Nagar, BHUBANESHWAR 751001 40 36 27

Kalaikathir Buildings, 670 Avinashi Road, COIMBATORE 641037 21 01 41

Plot No. 43, Sector 16 A, Mathura Road, FARIDABAD 121001 8-28 88 01

Savitri Complex, 116 G.T. Road, GHAZIABAD 201001 8-71 19 96

53/5 Ward No. 29, R.G. Barua Road, 5th By-lane, GUWAHATI 781003 54 11 37

5-8-56C, L.N. Gupta Marg, Nampally Station Road, HYDERABAD 500001 20 10 83

E-52, Chitaranjan Marg, C-Scheme, JAIPUR 302001 37 29 25

117/418 B, Sarvodaya Nagar, KANPUR 208005 21 68 76

Seth Bhawan, 2nd Floor, Behind Leela Cinema, Naval Kishore Road,
LUCKNOW 226001 23 89 23

NIT Building, Second Floor, Gokulpat Market, NAGPUR 440010 52 51 71

Patliputra Industrial Estate, PATNA 800013 26 23 05

Institution of Engineers (India) Building 1332 Shivaji Nagar, PUNE 411005 32 36 35

T.C. No. 14/1421, University P.O. Palayam, THIRUVANANTHAPURAM 695034 6 21 17

*Sales Office is at 5 Chowringhee Approach, P.O. Princep Street,
CALCUTTA 700072 27 10 85

†Sales Office is at Novelty Chambers, Grant Road, MUMBAI 400007 309 65 28

‡Sales Office is at 'F' Block, Unity Building, Narashimaraja Square,
BANGALORE 560002 222 39 71