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## Cashew kernels — Specification

*Noix-cajou — Spécifications*

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## Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 6477 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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# Cashew kernels — Specification

## 0 Introduction

The requirements specified in this International Standard are based on international trade practices followed by major exporting/importing countries, and are intended to facilitate further the international trading of cashew kernels.

## 1 Scope and field of application

This International Standard specifies requirements for kernels obtained from the fruits of the cashew nut tree (*Anacardium occidentale* Linnaeus) for human consumption.

## 2 References

ISO 565, *Test sieves — Woven metal wire cloth, perforated plate and electroformed sheet — Nominal sizes of openings.*

ISO 1026, *Fruit and vegetable products — Determination of dry matter content by drying under reduced pressure and of water content by azeotropic distillation.*

## 3 Definition

For the purposes of this International Standard, the following definition applies.

**cashew kernels:** Product obtained by roasting, shelling and peeling the fruits of the cashew nut tree.

## 4 General requirements

The cashew kernels shall be reasonably dry; they shall have the characteristic shape. They may be either scorched or unscorched; in the form of wholes or pieces. Cashew kernels shall be completely free from rancid kernels.

## 5 Specific requirements

### 5.1 Moisture content

The cashew kernels shall have a moisture content not greater than 5 % (*m/m*).

### 5.2 Grading

The cashew kernels shall comply with the classification criteria given in the table.

## 6 Sampling

Methods of sampling dry and dried fruit and vegetable products will form the subject of a future International Standard.

## 7 Methods of test

### 7.1 Moisture content

Determine the moisture content by the oven drying method specified in ISO 1026.

### 7.2 Visual examination

Test the samples of cashew kernels for conformity with the requirements of this International Standard by visual examination. For grades I to VII, determine the number of kernels in 1 kg (or 1 lb<sup>1)</sup>). Also ascertain the percentage of pieces and kernels belonging to the next lower grade, if any. For grades XI to XXIV, conduct a sieving test and check the percentage of the product not conforming to the relevant grade with account taken of the tolerance limit (see the appropriate footnote in the table).

### 7.3 Absence of insects, moulds and extraneous matter

Cashew kernels shall be free from living insects and moulds, and from discernible dead insects, mites, insect fragments, rodent contamination and insect damage, visible to the naked eye (corrected, if necessary, for abnormal vision) or with such magnification as may be necessary in any particular case. If the magnification exceeds 10X, this fact shall be stated in the test report.

1) At present, most international trade in cashew kernels is carried out in pounds.

## 8 Packing and marking

### 8.1 Packing

Cashew kernels shall be packed in clean and sound tinplate containers or any other leakproof containers, and sealed after infusion of an inert gas.

### 8.2 Marking

Each container shall be marked or labelled with the following particulars:

- a) name of the product and the trade-name or brand name, if any;
- b) name and address of the producer or packer;
- c) net mass;
- d) grade designation;
- e) producing country;
- f) any other marking required by the purchaser, such as the year of harvest and date of packing (if known);
- g) possibly, a reference to this International Standard.

Table — Grades, grade designations, names used in the trade and characteristics of cashew kernels

Cashew kernels (whole)				
Grade <sup>1)</sup>	Grade designation	Number of kernels per kilogram (per pound)		Characteristics
I	W 180	265 to	395 (120 to 180)	Cashew kernels shall have the characteristic shape, shall be white, very pale ivory or light ash-grey in colour, shall be free from insect damage, damaged cashew kernels and black or brown spots. The kernels shall be completely free from skin (integument).
II	W 210	440 to	465 (200 to 210)	
III	W 240	485 to	530 (220 to 240)	
IV	W 280	575 to	620 (260 to 280)	
V	W 320	660 to	706 (300 to 320)	
VI	W 400	770 to	880 (350 to 400)	
VII	W 450	880 to	990 (400 to 450)	
	W 500	990 to	1 100 (450 to 500)	
1) Tolerance: Broken kernels and kernels of the next lower grade, if any, shall not together exceed 5 % ( <i>m/m</i> ) at the time of packing.				
Scorched cashew kernels (whole)				
Grade <sup>1)</sup>	Grade designation	Known in the trade as		Characteristics
VIII	SW	Scorched wholes		Cashew kernels shall be free from insect damage, damaged kernels and black spots and skin (integument). The kernels may be light brown, light ivory, light ash-grey or deep ivory in colour due to scorching as a result of overheating.
1) Tolerance: Broken kernels and kernels of the next lower grade, if any, shall not together exceed 5 % ( <i>m/m</i> ) at the time of packing.				
Dessert cashew kernels (whole)				
Grade <sup>1)</sup>	Grade designation	Known in the trade as	Permissible blemish	Characteristics
IX	SSW or SWIA	Scorched wholes : seconds or scorched wholes IA	Slightly shrivelled kernels	Cashew kernels shall have the characteristic shape, shall be free from insect damage and skin (integument). Slightly scorched kernels and kernels with slight speckling and discoloration are permitted. The kernels may also be immature. The kernels may be light brown, light blue or light ivory in colour due to scorching.
X		Dessert		Cashew kernels shall have the characteristic shape, shall be free from insect damage and skin (integument). Scorched, discoloured, speckled and shrivelled kernels are permitted. The kernels may show deep black spots.
1) Tolerance: Broken kernels and kernels of the next lower grade, if any, shall not together exceed 5 % ( <i>m/m</i> ) at the time of packing.				

Table (continued)

Cashew kernels (white pieces)				
Grade <sup>1)</sup>	Grade designation	Known in the trade as	Description	Characteristics
XI	B	Butts	Kernels broken crosswise and naturally attached	Cashew kernels shall be white, pale ivory or light ash-grey in colour, free from insect damage, damaged kernels and black spots. The pieces shall be completely free from skin (integument).
XII	S	Splits	Kernels split naturally lengthwise	See grade XI
XIII	LWP	Large white pieces	Kernels broken into more than two pieces and not passing through a sieve of aperture 4,75 mm (see ISO 565, R 40/3)	See grade XI
XIV	SWP	Small white pieces	Broken kernels smaller than those described as LWP, but not passing through a sieve of aperture 2,80 mm (see ISO 565, R 20/3)	Cashew kernels shall be white, pale ivory or light ash-grey in colour, free from insect damage, damaged kernels and black spots. The pieces shall be completely free from skin (integument).
XV	BB	Baby bits	Broken kernels smaller than those described as SWP, but not passing through a sieve of aperture 1,70 mm (see ISO 565, R 40/3)	See grade XIV
XVI	SB	Scorched	Scorched kernels broken crosswise and naturally attached	Cashew kernels shall be free from insect damage, damaged kernels, black spots and skin (integument). The pieces may be light brown or deep ivory in colour due to scorching as a result of overheating.
XVII	SS	Scorched splits	Scorched kernels split naturally lengthwise	See grade XVI
XVIII	SP	Scorched pieces	Scorched kernels broken into pieces and not passing through a sieve of aperture 4,75 mm (see ISO 565, R 40/3)	See grade XVI
XIX	SSP	Scorched small pieces	Scorched kernels smaller than those described as SP, but not passing through a sieve of aperture 2,80 mm (see ISO 565, R 20/3)	See grade XVI

1) Tolerance: Up to 5 % (m/m) of the next lower grade or pieces at the time of packing.

Table (concluded)

Grade <sup>1)</sup>	Grade designation	Known in the trade as	Description	Permissible blemish	Characteristics
XX	SPS	Scorched pieces : seconds or scorched pieces IA	Scorched kernels broken into pieces, but not passing through a sieve of aperture 4,75 mm (see ISO 565, R 40/3)	Pieces of shrivelled kernels; they may be deformed due to incomplete development and may have black spots	Cashew kernels shall be free from insect damage and skin (integument). Scorched pieces with surface speckling and discoloration are permitted. The kernels may be light brown, deep ivory or light to deep blue in colour.
XXI	DP	Dessert pieces	See grade XX	More shrivelled than those described as SPS and deeply scorched	Cashew kernels shall be free from insect damage and skin (integument). The kernels may be deeply scorched, may have surface speckling and discoloration, may be brown, deep ivory or light to deep blue in colour, may be deformed and shrivelled due to incomplete development and may have spots.

1) Tolerance : Up to 5 % (m/m) of the next lower grade or pieces at the time of packing.

Grade <sup>1)</sup>	Grade designation	Known in the trade as	Description	Permissible blemish	Characteristics
XXII	DSP	Dessert small pieces	Dessert kernels of the same description as, but smaller than, DP and not passing through a sieve of aperture 2,80 mm (see ISO 565, R 20/3)	See grade XXI	See grade XXI
XXIII	DB	Dessert butts	Dessert kernels broken crosswise and naturally attached	See grade XXI	See grade XXI
XXIV	DS	Dessert splits	Dessert kernels split naturally lengthwise	See grade XXI	See grade XXI

1) Tolerance : Up to 10 % (m/m) of the next lower grade at the time of packing.