

# THEPISTACHIOCO. IN-SHELL PISTACHIO SPECIFICATIONS



## RAW IN-SHELL PISTACHIOS MECHANICALLY OPENED "MO"

Facility : THEPISTACHIOCO. Middle East

Varieties - Shape : **Jumbo Round / Regular Round**  
**Jumbo Long / Medium Long / Regular Long**

Caliber / Number of Fruits per Ounce: **21/26 - 26/30 -30/34**

Shelf life: 18 months after packing date at ambient conditions  
 (optimum storage conditions : 5 C to 15 C , RH : 55%)

(18) Nuts must be crunchy, free from any off-taste or foreign odor, with typical pistachio flavor  
**100% Mechanically Opened using industrial equipment without hand cracking**  
**without sinking in water or ice cracking method**

### Tolerances:

IR Standards	IR NO.1	IR NO.2
Factor		
External shell defects (tolerance by weight)	Percent	Percent
Open mouth	95	93
(1) Close Shell	5	7
(2) Adhering hull	2	2
(3) Stained	7	10
(4) Out of caliber	20	30
(5) Midgets	3	5
(6) Mechanical Damage	8	12
(7) Discolouration	10	15
(8) Dissimilar varieties	10	20

Factor	IR NO.1	IR NO.2
Internal ( kernel ) defects (tolerances by weight)	Percent	Percent
(9) Edible meat	>47%	>42%
(10) Damaged	3	7
(11) Serious Damaged (bitter-mouldy)	2	3
Including maximum Insect Damaged	1	2
(12) Roasted kernel - Over heated	3	5
(13) Total Internal Defects	5	10

Factor	IR NO.1	IR NO.2
Other Defects ( tolerance by weight )	Percent	Percent
(14) Shell pieces and blank	3	5
(15) Loose kernels	3	5
(16) Foreign material	0.05	0.05

( No glass , metal, brittle\* , hard plastic\* , ceramics\* or live insect shall be permitted )

Factor	IR NO.1	IR NO.2
Chemical parameter	Percent	Percent
(a)Moisture	Min 4 - Max 7	Min 4 - Max 7
(b)Aflatoxin B1	legislation/customer spec	legislation/customer spec
(c)Aflatoxin Total	legislation/customer spec	legislation/customer spec



## “IR STANDARDS” DEFINITIONS FOR IN-SHELL PISTACHIO SPECIFICATION

### External shell defect definition:

1. **Close shell** means tightly closed nuts in which human nail cannot enter the suture
2. **Adhering hull** means an aggregate amount covers more than one-quarter of total shell surface.
3. **Stained** means an aggregate of yellow to dark brown or black discoloration is noticeably contrasting with the ordinary color of shell and affect is more than one-quarter of the total shell surface.
4. **Out of caliber** means proportion of aggregate amount of oversized and undersized pistachios regarding to caliber of Lot.
5. **Midgets** means pistachio in-shell which falls through an 10 mm round whole screen.
6. **Mechanical Damage** are nuts that have split against their natural suture
7. **Discoloration** means light grey or dark grey discoloration on shells contrasting with ordinary shell color.  
These colors are the nature of pistachio and do not have any effect on quality.
8. **Dissimilar varieties** mean proportion of other variety in main variety of goods.

### Internal defects definition:

9. **Edible meat** means proportion of aggregate kernel in 100 Gram of in-shell sample.
10. **Damaged** means immature kernels which are excessively small, or fills less than three-fourths, but not less than one-half the shell cavity / Kernel spotting refers to dark brown or dark gray spots aggregating more than one-eighth of the kernel surface.
11. **Serious damage contains** a) minor insect or vertebrate injury means the kernel shows conspicuous evidence of feeding  
b) insect damage meaning an insect, insect fragment, web or frass attached to the kernel. No live insect shall be permitted.  
c) Mold which is readily visible on the shell or kernel d) Rancidity which means the kernel is distinctly rancid to taste. Staleness of fla shall not be classed as rancidity e) Decay means one-sixteenth or more of the kernel surface is decomposed.
12. **Roasted/overheated** means kernels which have cooked and inside the kernel has turned brown
13. **Total internal defects** means total percentage of damage and serious damage.

### Other factor definition:

14. **Shell pieces and blanks** means open shell or half shell not containing any kernel
15. **Loose kernels** means kernels without any shell
16. **Foreign material** means leaves, sticks, loose hulls or hull pieces, dirt, rocks, insects or insects fragments not attached to nuts or any substance other than pistachio shells or kernels. Glass, metal and live insect shall not be permitted.  
( In IR Fancy and IR Extra : hard plastic, ceramic and similar material shall not be permitted since those products have been processe with electronic sorters in complement to hand sorting.
18. **Off Taste and foreign odor** means absence of any flavor or odor not typical to pistachios. Only internally certified staff demonstrating ability to detect flavors and odors shall do the sensory test.