



**PRODUCT MANUAL
FOR ROASTED GROUNDNUT (PEANUT) KERNELS
ACCORDING TO IS 10065 : 1981**

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.

1.	Product	:	IS 10065 : 1981
	Title	:	Roasted Groundnut (Peanut) Kernels
	No. of Amendments	:	01
2.	Sampling Guidelines:		
a)	Raw material	:	No specific requirements
b)	Grouping guidelines	:	NA (No varieties for the product mentioned in IS)
c)	Sample Size	:	2 x 500 gm
3.	List of Test Equipment	:	ANNEX - A
4.	Scheme of Inspection and Testing	:	ANNEX - B
5.	Possible tests in a day :		
	i. Description ii. Freedom from insects, insect residues, rodent hair and excreta, fungal infection, objectionable odour and rancid taste. iii. Moisture iv. Fat v. Acid value of extracted fat		
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 10065 : 1981 with the following scope:		
	Name of the product		Roasted Groundnut (Peanut) Kernels

ANNEX – A
TO PRODUCT MANUAL
FOR ROASTED GROUND (PEANUT) KERNELS
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LIST OF TEST EQUIPMENTS

Major test equipment required to test as per the Indian Standard

S. No.	Test Equipments	Test used in with clause reference
1.	Weighing Balance (0.1g to 220g, LC 0.0001g), Aluminium plate, Hot Air oven (Ambient to 200 ⁰ C), Spatula, Desiccator, Silica gel, Calcium Chloride, thermometer K-Type thermocouple (-20 ⁰ C to 1000 ⁰ C).	Moisture Cl 4.4, Table 1 Appendix B of IS 4684
2.	Weighing Balance (range-0.1g to 220g, LC-0.0001g), Soxhlet apparatus, Soxhlet flask, Desiccator, heating mantle (range-1 ^o C to 100 ^o C, Silica gel, Hot air oven (range- Ambient to 200 ^o C, LC 1 ^o C), petroleum ether, Thimble, Tongs, whatman No-1 filter paper, Calcium Chloride,	Fat Cl 4.4, Table 1 Appendix F of IS 4684
3.	Weighing Balance (0.0001g to 220g), potassium hydrogen phthalate, soxhlet extraction apparatus, soxhlet flask, Measuring cylinder (5to50 ml, graduated 1ml, 10 to 100ml, graduated at 1ml,20 to 250ml, graduated at 2ml), Volumetric flask - 100ml, 500ml, conical flask - 100ml, 250 ml, Burette (0 to 10ml, graduated at 0.05ml, 0 to 25ml, graduated at 0.1 ml), Pipette (0 to 5ml, graduated at 0.1ml,0 to 10ml, graduated at 0.1ml), petroleum ether (distilling below 65 ^o C), Benzene, potassium hydroxide, potassium permagnate phenolphthalein indicator, potassium dichromate, whatman No-1 filter paper, ethyl Alcohol.	Acid value of extracted fat Cl 4.4, Table 1 Appendix G of IS 4684
4.	Weighing Balance (0.1g to 220g,0.0001g), disc mill, wrist-action shaker – 1400 to 1600 rev/min, Chromatographic column, measuring cylinder, funnel , rotary evaporator with continuous feed (Amb to 100 ^o C, 5 ^o C), thin layer chromatographic plate (ready-made), micropipette (10µl to 100 µl, LC 1 µl), desiccating storage cabinet, storage rack, UV-Chamber with,15 -watt ultraviolet lamp, silica gel, chloroform, diethyl ether, hexane, methyl alcohol, aflatoxin standard solution (B1,B2,G1,G2) (Conc 0.5 to 1.5 µg -B1 CONC 0.3 TO 1.0 µg -G1), acetone, sodium sulphate (Anhydrous), fluted filter paper , buchner funnel 320 mm whatman No-1, Boiling chips,	Aflatoxin Cl 4.4, Table 1 Appendix J of IS 4684

5.	<p>Iodometric method: Pipette, graduated, 1 ml capacity, Conical flask, glass-stoppered, 250 ml capacity or Iodine flask, Acetic acid-chloroform solution, Potassium iodide solution, Sodium thiosulphate solution — 0.1 N, Sodium thiosulphate solution — 0.01 N, Starch solution — 1 percent, prepare fresh, Weighing Balance (0.1g to 220g,0.0001g), Stop watch, Distilled water, Titration set,</p> <p>Spectrophotometric Method : Chloroform-methanol solution, Ferrous chloride, Ammonium thiocyanate solution, 0.2 N hydrochloric acid (HCl) solution, Standard solution of iron (III) chloride, Working standard solution, Analytical balance, sensitivity 1 mg, Burettes, of 10 ml capacity, with scale divisions at each 0.02 ml, Pipettes, of 1 ml capacity, provided with graduation marks at each 0.05 ml, Spectrophotometer — for measuring at a wavelength of 500 nm, a light-path of 1.0 cm,</p>	Peroxide value Cl 4.4, Table 1 22.1 and 22.2 of IS 3508
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List above is indicative only and may not be taken as exhaustive

ANNEX – B

**SCHEME OF INSPECTION AND TESTING
FOR PRODUCT MANUAL
FOR ROASTED GROUNDNUT (PEANUT) KERNELS
ACCORDING TO IS 10065 : 1981**

1. LABORATORY - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

1.1 The manufacturer shall prepare a calibration plan for the test equipments.

2. TEST RECORDS – The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. PACKING AND MARKING – The Standard Mark, as given in the Schedule of the licence, shall be stenciled/printed on each container of Roasted Groundnut (Peanut) Kernels or printed on the labels applied to it, as the case may be, provided always that the material in each package to which this mark is thus applied, conform to every requirement of the specification.

3.1 Packing and marking shall be done as per the provision of the Indian Standard. In addition, the following details shall be mentioned on each package legibly and indelibly:

a) BIS Licence No. CM/L_____

b) BIS website details i.e –“For details of BIS certification please visit www.bis.gov.in”.

4. CONTROL UNIT – For the purpose of this scheme, the entire quantity of Roasted Groundnut (Peanut) kernels manufactured continuously in a day from the same consignment of raw materials and from the same set of machineries shall constitute a control unit.

5. LEVELS OF CONTROL - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

5.1 All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

6. INGREDIENTS

The ingredients shall be as indicated in clause 2.0 and 3.0 of the specification. The manufacturer shall make necessary arrangement for getting sample(s) from each consignment of the raw material received tested for

its conformity to clause 2.0 or 3.0 of the specification and use it if found satisfactory and appropriate records maintained as per table 2 of SIT.

7. HYGIENIC CONDITIONS

The place of manufacture, packing and storage of the material and equipments employed shall be maintained under hygienic conditions (See IS 2491). All the processing equipments should be properly cleaned and care should be taken to prevent infestation and contamination.

8. REJECTION - Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

**TABLE 1
LEVELS OF CONTROL**

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: sub-contracting permitted	Levels of Control		
Clause	Requirement	Test Method Cl. Ref.	Test Method IS		No of sample	Frequency	Remarks
2 & 3	Ingredients	2 & 3	IS 10065	R	One	Each consignment	See clause 6 of SIT
4.1 & 4.2	Description	4.1 & 4.2	IS 10065	R	One	Each control unit	-
4.4 & Table 1	i) Moisture	Appendix B	IS 4684	R	One	Each control unit	-
	ii) Fat (On Dry Basis)	Appendix F	IS 4684	R	One	Each control unit	-
	iii) Acid value of extracted fat	Appendix G	IS 4684	R	One	Each control unit	-
	iv) Aflatoxin	Appendix J	IS 4684	R	One	Each control unit	-
	v) Peroxide value	22	IS 3508	R	One	Each control unit	-
4.5	Broken Kernels	4.5	IS 10065	R	One	Each control unit	-

Note-1: Whether test equipment is required or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empaneled by the Bureau.

Note-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.

Table 2- Record of Essential and Optional Ingredients as per Clause 2 and 3 of IS 10065

Sl No	Date of receipt	Name of the Ingredient		Source	In case ISI marked raw material -The corresponding IS Number & Licence No.	In case testing done from Outside Laboratory			In case Non ISI raw material & accompanied by Test Certificate- Test Certificate No & Date	Results	Whether conforming
		Essential	Optional			Name of Lab	Sample sent On	TR No.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)

Note: If raw material is ISI marked or accompanied by Test report/ Supplier test certificate showing conformance to the respective ISS, no further testing is required by the licensee.