



www.bis.gov.in

उत्पाद मानुयल
विलेय कॉफी चूर्ण
2791:2022 के अनुसार

**PRODUCT MANUAL FOR SOLUBLE COFFEE POWDER
ACCORDING TO IS 2791:2022**

विविन्न उत्पादों के वलए िरतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विवलयम, 2018 की योजना-1 के तहत प्रमाणन के सांचालन मेंअभ्यास और पारदवशिता के सांचालन मेंपारदवशिता सुवनवित करनेके वलए इस उत्पाद मैनुअल का उपयोग सी क्षेत्रीय / शाखा कायािलियों और लाइसेंसधारर्यों द्वारा सांदिि सामग्री के रूप मेंवकया जाएगा। दस्तािेज़ का उपयोग बीआईएस प्रमाणन लाइसेंस / प्रमाण पत्र प्राप्त करनेके इच्छुक सांिवित आिेदकों द्वारा िी वकया जा सकता है।

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.	उत्पाद Product	:	IS 2791 :2022
	शीर्षक Title	:	विलेय कॉफी चूर्ण Soluble Coffee Powder
	संशोधन संख्या No. of Amendments	:	Nil
2.	नमुनाकरण दिशा निर्देश Sampling Guidelines:		
a)	कच्चा माल Raw material	:	The material shall be made from freshly roasted and ground coffee Beans.
b)	समूहिकरण दिशा निर्देश Grouping guidelines	:	कृपया Annex-A देखें Please refer Annex A
c)	नमूने का परिमाण Sample Size	:	2 x 200 gram (Approx)
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	कृपया Annex-B देखें Please see Annex – B
4.	निरीक्षण व परीक्षण स्कीम	:	कृपया Annex-C देखें

	Scheme of Inspection and Testing	Please see Annex – C
5.	एक दिन में संभावित परीक्षण Possible tests in a day :	
	a) Description b) Cup test c) Moisture content d) Caffeine Content e) Total Ash f) Solubility in boiling water g) Solubility in cold water h) Copper Content	
6.	लाइसेन्स का कार्यक्षेत्र / Scope of the Licence:	
	IS 2791: 2022 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेन्स निम्नलिखित कार्यक्षेत्रके लिए प्रदान किया जाता है Licence is granted to use Standard Mark as per 2791: 2022 with the following scope:	
	उत्पाद का नाम Name of the product	Soluble Coffee Powder
	Type	Soluble Coffee Powder and/or Decaffeinated Soluble Coffee Powder
	Any other relevant information	With or without ECO-Mark

BUREAU OF INDIAN STANDARDS
Manak Bhawan, 9, Bahadur Shah Zafar Marg,
New Delhi – 110002

ANNEX A

GROUPING GUIDELINES

1. There are two types of products (Soluble Coffee Powder) classified based on manufacturing process (clause 3 of IS 2791:2022):

1	Soluble Coffee Powder
2	Decaffeinated Soluble Coffee Powder

2. The manufacturer shall declare the type of coffee powder which they intend to cover in the scope of licence. The sample of each type to be drawn and shall be subjected to testing for considering grant of licence/inclusion of that type.
3. In case it is also intended to cover ECO-Mark, the sample(s) shall also be tested for the additional requirement for ECO-Mark.
4. It shall be ensured that the firm is having all the necessary manufacturing and testing facilities for the types to be included in the licence.
5. During the operation of licence, BO shall ensure that all the types of coffee powder covered in the license are drawn for independent testing on rotation over a period of time.

ANNEX – B
LIST OF TEST EQUIPMENT

Sr. No.	Tests used in with Clause Reference	Test Equipment
1.	Cup test Cl. 3.2 & Annex A	Weighing balance/ Analytical, Water boiler with temp controller, Watch glass, Porcelain bowl, Chlorine free water, Milk, Sugar, Stirrer, Thermometer
2.	Moisture content Cl. 3.3 & Table 1 (IS 16029 for reference purpose and IS 16030 for routine purpose)	IS 16029 Pyridine free Karl Fischer reagent, Methanol, Molecular sieve(0.3 nm, pearl shaped; diameter approx. 2 mm, Drying Oven (40±5°C), Ultra-microbalance(LC= 0.000 1 g), Microbalance(LC= 0.001 g), Reflux apparatus, Heating device, Round-bottomed flask of 100 ml with conical sleeve, Reflux condenser(25 cm to 30 cm in length with conical ground joint), Drying tubes, Titration apparatus (consisting of End-point indicator, Platinum double electrode. Magnetic stirrer, Titration vessel, Burette), Syringe, Desiccator, Measuring cylinder, Pipettes IS 16030 Oven (103±1°C), Dish (made of corrosion-resistant metal or of glass, with lid and an effective surface area of at least 18 cm²), Desiccators, Analytical Balance (LC=0.1mg)
3.	Caffeine content (on dry basis) Cl. 3.3 & Table 1 (IS 16028)	Methanol(HPLC grade), Magnesium Oxide(heavy, high grade), Caffeine, Mobile phase(24 % volume fraction methanol in water), Analytical Balance, Membrane filter units of pore size 0.45 µm, HPLC with UV detector set at 272 nm (270 nm to 280 nm) or a filter detector (254 nm), and with a data collection/integration system, Chromatographic column for HPLC, of minimum length 125 mm, packed with C18 material, preferentially 5 µm spherical particles, Magnetic stirrer with heater and mounted water bath, Ultrasonic bath, Microlitre syringe, Coffee mill, Grinder with cogged wheel, Sieve(nominal size of openings 630 µm), Pipettes
4.	Total Ash (on dry basis) Cl. 3.3 & Table 1 (Annex B)	Analytical Balance (LC-0.1 mg), Platinum Dish, Heating Burner with fuel connection, Muffle Furnace(550±10°C), Desiccator.
5.	Solubility in Boiling water Cl. 3.3 & Table 1 (Annex C)	Test tube (150ml), Heater, Analytical Balance, Beaker (500ml), Glass rod, Stop watch, Thermometer
6.	Solubility in cold water Cl. 3.3 & Table 1 (Annex C)	
7.	Copper	Kjeldahl flasks, Atomic absorption spectrophotometer, Nitric acid,

	content Cl. 3.4 (Cl. 15.1 of IS 1699)	Perchloric acid, Sulphuric acid-98%, Hydrochloric acid (sp gr 1.16 to 1.18), Water (metal free) Sodium Sulphate, Sodium borohydride pellets, Potassium Chloride, Copper sulphate, Flask (100mg), Zinc Powder Potassium Dichromate, Analytical balance, Heater, Measuring flask.
--	---	---

The above list is indicative only and may not be treated as exhaustive

ANNEX C
SCHEME OF INSPECTION AND TESTING

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 and implement 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 or printed on the labels applied to the container, as the case may be, provided always that the material in each container to which this mark is thus applied conforms to every requirement of the specification.

3.1 Marking: The information as mentioned under clause 4.2.1 of IS 2791 shall be legibly and indelibly marked or labelled on each container. In addition, the following details shall be mentioned on each container 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”.

3.1.1 The container may also be marked with ECO-Mark by ECO-Mark licence holder.

4. CONTROL UNIT – For the purpose of this scheme, entire quantity of Soluble Coffee Powder of the same type, manufactured under similar condition from one day’s production of extract shall constitute one control unit (batch).

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.

5.2 ECO-Mark: The requirements for ECO-Mark as stipulated under clause 3.6 of IS 2791 shall be implemented by the licensee holding licence for ECO-Mark, which will be in addition to the product requirements.

6. HYGIENIC CONDITIONS- Soluble Coffee Powder shall be processed and packed under hygienic conditions and the manufacturing premises shall be always maintained under hygienic conditions (see IS

2491). The handling equipment like roasters, grinders, extractors and driers, and the packing equipment shall be clean and free from any objectionable odour.

6. REJECTIONS – 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		
Cl.	Requirement	Test Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
3.1	Description	3.1	IS 2791	R	One	Once every hour	Immediately after spray drying during production
3.2	Cup Test	Annex A	IS 2791	R	One	-do-	
3.4 & Table 1	i) Moisture content	---	IS 16029 for reference purpose and IS 16030 for routine purpose	R	One	Every 4 hours	
	ii) Caffeine Content	-	IS 16028	R	One	Each Control Unit	
	iii) Total Ash Content	Annex B	IS 2791	R	One	Each Control Unit	
	iv) Solubility in Boiling Water	Annex C	IS 2791	R	One	Once every hour	
	v) Solubility in Cold Water at 16±2 ⁰ C		IS 2791	R	One	Once every hour	
3.5	Copper Content	15.1	IS 1699	S	One	Once in a month	See Note 3
3.6.2.1	Free From Infestation	3.6.2.1	IS 2791	R	One	Each Control Unit	Specific requirement for ECO Mark
3.6.2.2	Free From Extraneous Matter, Coloring and Flavouring and Rancidity	3.6.2.2	IS 2791	R	One	-do-	Specific requirement for ECO Mark
3.6.2.3	Freedom from Adulterants	3.6.2.3	IS 2791	R	One	-do-	Specific requirement for ECO Mark
3.6.2.4	Pesticides Residues	3.6.2.4	IS 2791	S	One	-do-	Specific requirement

							for ECO Mark
--	--	--	--	--	--	--	--------------

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 empanelled 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.

Note-3: If sample fails, subsequent five control units shall be tested, till all the five control units are found conforming and after that, the original frequency to be restored