

PRODUCT MANUAL FOR TABLE WINES ACCORDING TO IS 7058: 2005

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 7058 : 2005						
	Title	:	Table Wines - Specification				
	No. of Amendments	:	01				
2.	Sampling Guidelines:						
a)	Raw material	:	 Water conforming to IS 14543 or IS 13428 or IS 10500 with or without demineralization shall be used. In case of externally carbonated sparkling wines, Carbon Dioxide should be drawn for testing its conformity to Grade 2 of IS 307 if the material is not ISI marked. 				
b)	Grouping guidelines	:	For the purpose of grant of licence or inclusion, following three groups should be considered: 1. Dry: Red and White 2. Sweet: Red and White 3. Sparkling wine Any one type of wine from a group should be tested to include all the types of wine in that particular group for grant of licence or inclusion.				
c)	Sample Size	:	6 liters of the product.				
3.	List of Test Equipment	:	Please refer ANNEX – <u>A</u>				
4.	Scheme of Inspection and Testing	:	: Please refer ANNEX – <u>B</u>				
5.	Possible tests in a day:						
	i. Ethyl alcohol content ii. Reducing residual sugar iii. pH iv. Volatile acidity v. Esters as ethyl acetate vi. Higher alcohols as amyl alcohol						

BUREAU OF INDIAN STANDARDS

Manak Bhawan, 9, Bahadur Shah Zafar Marg,

New Delhi – 110002

	vii. Aldehydes as acetaldehydes viii. Total Sulphur dioxide ix. Free Sulphur dioxide					
6.	Scope of the Licence :					
	"Licence is granted to use Standard Mark as per IS 7058 : 2005 with the following scope:					
	Name of the product TABLE WINES					
	Туре	Dry Red/Dry white/Sweet White/Sweet Red/Sparkling				

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ANNEX A TO PRODUCT MANUAL FOR TABLE WINES ACCORDING TO IS 7058 : 2005 LIST OF TEST EQUIPMENT

Major test equipment required to test as per the requirement of Indian Standard

Sl.	Tests used in with Clause	Test Equipment
No.	Reference	
1	Ethyl Alcohol Content Cl. 7.1 (Cl. 4 of IS 3752)	
	Method 1: Hydrometer method	Hydrometer, Glass Cylinder, Thermometer (0-50/0.5 C)
	Method 2: Pyknometer Method	Distillation assembly , Pyknometer (25-50 ml), Thermometer, Measuring Flask (200 ml), Distilled Water Pumice stone.
	Method 3- Distillation Method	Distillation assembly, Pyknometer (25-50 ml), Thermometer, Separating Funnels (500 ml), Measuring Flask (200 ml), Sodium Chloride, Petroleum Ether Sodium Hydroxide, Phenolphthalein, Distilled Water Pumice stones.
7	Carbonation (for sparkling wine) Cl. 7.7 (Annex B of IS 7058)	Gas Volume tester with pressure gauge, Thermometer
8	Reducing residual sugar Cl 7.8 and Table 1 (Cl. 7 of IS 7585)	Weighing balance, 1 L graduated Flask, Burettes, Pipettes, Volumetric flasks, Hot plate, Glass beads, Porcelain dish, Erlenmeyer Flasks, Water aspirator, Beakers, Filter papers, Asbestos Filters, Soxhlet reagent Lead acetate, Glacial acetic acid, Disodium Hydrogen Phosphate, Methylene Blue, Distilled Water, Anhydrous dextrose, Benzoic acid, Sodium Hydroxide, Phenolphthalein solution (in rectified spirit), Activated Charcoal.
9	pH Cl 7.8 and Table 1 (Cl. 5.1 of IS 7585)	pH meter, Beakers

10	Total acids (as tartaric	Burettes, Pipettes, Volumetric flasks, Hot plate,			
	acid)	Erlenmeyer flasks, Water aspirator, Beakers, Sodium			
	Cl 7.8 and Table 1	Hydroxide, Phenolphthalein solution (in rectified spirit)			
	(Cl. 5.2 of IS 7585)	Distilled water.			
11	Volatile acidity expressed	Sellier's apparatus with stand, Erlenmeyer Flasks,			
	as acetic acid	Pipette, Burner, Hot plate, Burette, Sodium Hydroxide			
	Cl 7.8 and Table 1	Phenolphthalein solution (in rectified spirit)			
	(Cl. 5.3 of IS 7585)	Distilled water			
12	Esters as ethyl acetate	Sellier's apparatus with stand, Erlenmeyer Flasks, Pipette			
	Cl 7.8 and Table 1	Burner, Hot plate, Steam bath, Burette, Std. Sodium			
	(Cl. 10 or Annex A of IS	Hydroxide, Std. Sulphuric acid, Phenolphthalein solution			
	3752)	(in rectified spirit), Distilled water			
	See Note 1*				
13	Higher alcohols as amyl				
	alcohol	Kjeldahl Flask fitted with splash head connected to			
	Cl 7.8 and Table 1	distillation head (connected to a Liebeg condenser which			
	(Cl. 11 or Annex A of IS	opens into a receiver having a capacity of 250 ml)			
	3752)	Beakers, Flasks, Weighing balance, Burettes, Pipettes,			
	Method 1	Sulphuric acid (as per IS 266), Distilled water, Potassium			
		dichromate, Standard Sodium Hydroxide, Carbon			
		Tetrachloride, Sodium Sulphate, Sodium Chloride,			
		Phenolphthalein (IS 2263),			
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	Method 2	Spectrophotometer, Volumetric flasks, Weighing			
		balance, Pipette, Burette, Measuring cylinders,			
		Erlenmeyer flasks, Distillation assembly, Stoppered test			
		tubes, Ice-bath, Boiling water bath, Room temperature			
	Can Nata 1*	bath, p-dimethyl amino benzaldehyde solution,,			
	See Note 1*	Sulphuric acid, Isobutyl alcohol, Isoamyl alcohol, Ethyl alcohol, Carborandum, Fusel oil			
		alcohol, Carboralidum, Puser on			
14	Aldehydes as acetaldehyde	Iodine flasks, Distillation assembly, Pyknometer (25-50			
	Cl 7.8 and Table 1	ml), Thermometer, Measuring Flask (200 ml), Burette,			
	(Cl. 12 or Annex A of IS	Pipette, Sodium Bisulphite, Standard Iodine solution,			
	3752)	Standard Sodium Thiosulphate solution, Starch Indicator			
	See Note 1*	(IS 2263), Distilled water			
15	Total sulphur dioxide	Round bottom Flask, Burettes, Pipettes, Absorption			
	Cl 7.8 and Table 1	tubes, 200 x 25 ml connected in series, mercury			
	(Cl. 9.2 of IS 7585)	manometer and water pump, Burner, Hydrogen Peroxide			
	Distillation method	Sodium Hydroxide, Orthophosphoric acid			
L	<u>L</u>	* * *			

	Ripper Method	Weighing balance, Cold bath, Hot bath, Decanter,
		Pipette, Burettes, Erlenmeyer flask, Standardized Iodine solution, Sodium bicarbonate, Starch, Mercuric iodide Distilled water, Sulphuric acid, Sodium Hydroxide
16	Free Sulphur Dioxide Cl 7.8 and Table 1 (Cl. 9.1 of IS 7585) Ripper Method	Weighing balance, Cold bath, Hot bath, Decanter Pipette, Burettes, Erlenmeyer flask, Hydrogen Peroxide Sodium Hydroxide, Orthophosphoric acid
	Distillation method	Round bottom Flask, Burettes, Pipettes, Absorption tubes, 200 x 25 ml connected in series, mercury manometer and water pump.
17	Copper (as Cu) Cl 7.8 and Table 1 (Cl. 10 of IS 7585)	Pipette, Separating funnels, Beakers, Filter paper Test tubes, Conc. Hydrochloric acid, Citric acid Ammonium Hydroxide, Sodium Diethyldithiocarbamate solution, Distilled water, Amyl acetate, Methyl alcohol, Sodium sulphate, Standard copper solutions.
18	Iron (as Fe) Cl 7.8 and Table 1 (Cl. of IS 7585)	Pipette, Test tubes, Hot bath, Dessicator, Burner, Fumehood with shatterproof glass, Congo red paper Beakers, Photelectric Photometers, Sulphuric acid Perchloric acid, Hydroxylamine hydrochloride, Phenolphthalein, Alcohol, Ammonium hydroxide, Standard stock Iron solution, Distilled water.
19	Extracts C1 7.8 and Table 1 (C1. 6 of IS 7585) Pyknometer Method	Constant temperature water bath, Pyknometers with capillary tubes, Distillation assembly, Filter Paper Flasks, Vacuum Pump, Thermometer, Distilled Water Acetone, Pumice Stones
	Evaporation Method	Pipette, Platinum Evaporating Dishes (75 ml), Oven, Water Bath, Dessicator. Distillation assembly, Thermometer, Hydrometer,
	Hydrometer Method	Sodium Hydroxide, Distilled water, Pumice stones.
20	Tannins C1 7.8 and Table 1 (Cl. 8 of IS 7585) Colorimetric Method	Distillation assembly, Weighing balance, Hot plate, Pipette, 100 ml Volumetric Flasks, Sodium Tungstate Phosophomolybdic acid, Phosphoric acid, Distilled water, Anhydrous Sodium Carbonate, Sodium Carbonate Monohydrate, Tannic acid

	Spectrometric Method	Distillation assembly, Weighing balance, Hot plate, Glass wool, Pipette, 100 ml Volumetric Flasks, Spectrophotometer, Sodium Tungstate, Phosophomolybdic acid, Phosphoric acid, Distilled water, Anhydrous Sodium Carbonate, Sodium Carbonate, Monohydrate, Tannic acid.					
21	Methyl alcohol Spectrophotometer (1 cm cell), Weighing Balance, H						
	Cl 7.8 and Table 1	plate, Filter paper, Distillation assembly, 50 ml Stoppered					
	(Cl. 16 of IS 3752)	Test tubes, Ice bath, Hot bath (80 °C), Sodium Bisulphite,					
	Spectrophotometric	Potassium Permanganate, Phosphoric acid, Distilled					
	Method	Water, Sodium salt of chromotropic acid solution,					
	See Note 2*	Sulphuric acid, Methyl alcohol, Isopropyl alcohol,					
		Ethanol					
22	Inspection of Empty and	A brightly Illuminated background					
	Filled Containers						
	Cl. 8.3						

Note 1: Alternatively, Gas Chromatographic method as mentioned in the Annex A of IS 3752 may also be used.

Note 2: Alternatively, Gas Chromatographic method as mentioned in the clause 16. 2 of IS 3752 may also be used.

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

ANNEX B SCHEME OF INSPECTION AND TESTING FOR TABLE WINES ACCORDING TO IS 7058: 2005

- **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 Schedule of the licence shall be incorporated by means of printing on the label of each Bottle of Table wine, provided always that the material in each bottle to which this mark is thus applied conforms to every requirement of the specification.
- **3.1 Packing -** Table wines may be filled in glass bottles conforming to IS 1662 or plastic bottles made of PET conforming to IS 14537 or any other suitable neutral or non-reactive food grade containers which does not affect its quality. The bottles or containers shall be properly sealed.
- 3.1.1 All new containers shall be cleaned according to clause 5.6.1 of IS 14348.
- 3.1.2 Used bottles shall be permitted if cleaned in a hygienic way by the manufacturer as per clause 5.6.1.1 of IS 14348.
- **3.1 3 Inspection of Empty and Filled Containers** Containers, both before and after filling shall pass for inspection before a brightly illuminated background and be viewed, if necessary, under magnification. Automatic inspection by specially designed units may also be employed. Defective containers or products shall be rejected.
- 3.1.4 In case of sparkling wines: a) All containers shall be cleaned and sanitized according to clause 4.1 of IS 5837. b) The containers shall be filled under strictly sanitary conditions as per IS 5837. After filling, the containers shall be hermetically sealed with clean, new crown corks conforming to IS 1994.
- **3.2 Marking** The particulars mentioned under clause 9.1 shall be marked legibly and indelibly on the label/crown/body of the 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"

NOTE – Geographical designations/names may be used on the label solely for products originating from that geographical region.

- **4. CONTROL UNIT** –The quantity of the table wines of the same type packed from the same Vat (tank) in a day constitute one 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 may be marked with Standard Mark.
- 5.2 The samples of table wine shall pass for all the requirement specified in Table 1 of Indian standard Specification and shall also comply with the other requirements as given under Cl no. 7.1 to 7.7 of IS 7058.
- **6. HYGIENIC CONDITIONS** Table Wines shall be manufactured under hygienic conditions (see IS 14348). Schedule for each activity for this purpose shall be displayed prominently in the factory premises and records of compliance shall be maintained.

7. RAW MATERIAL/INGRADIENTS –

- 7.1 **WATER QUALITY** Firm should declare the source (along with corresponding IS) from which the water is being used. Corresponding to the source, sample of water may be drawn for testing as per the declared source (corresponding IS).
- 7.2 **CARBONATION-** In case of sparkling wines externally carbonated, it shall be carbonated with carbon dioxide conforming to Grade 2 of IS 307 to a pressure in accordance with its character. Supplier TC for each batch of CO₂ or ISI marked material for conformity of CO₂ to grade 2 of IS 307 may be accepted.
- 7.3 Each batch of packing material shall be as per clause 8.1 of 7058. Supplier TC may be accepted for conformity. A declaration from firm as well as the supplier for the food grade quality of the containers should be insisted.
- 7.4 Corks for Sparkling wine shall conform to IS 1994. ISI marked material/ Supplier TC may be considered for conformity. A declaration from firm as well as the supplier for the food grade quality of the containers should be insisted.
- **8. 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 FO CONTROL

(1)				(2)	(3)		
Test Details				Test equipment	Levels of Control		
Cl.	Requirement	Test Method Cl. Ref.	Test Method IS	requirement R: required (or) S: Sub-contracting permitted	No. of Sample	Frequency	Remarks
7.1	Ethyl Alcohol content % by volume	4	IS 3752	R	One	Each control unit	
7.2	Description	7.2	IS 7058	R	-do-	-do-	
7.3	Freedom from mould and Bacterial growth	7.3	IS 7058	R	-do-	-do-	
7.4	Freedom from Sedimentation & harmful ingredients	7.4	IS 7058	R	-do-	-do-	
7.5	Colour and Additives	7.5	IS 7058	R	-do-	-do-	Firm to maintain record of additives added and their quantities.
7.6	Taste and aroma	7.6	IS 7058	R	-do-	-do-	Firm to maintain record of additives added and their quantities.
7.7	Carbonation	Annex B	IS 7058	R	-do-	-do-	See clause 7.2 of SIT
7.8 & Table 1	Reducing residual sugar	7	IS 7585	R	One	Each control unit	
-do-	рН	5.1	IS 7585	R	-do-	-do-	
-do-	Total acid (as tartaric acid)	5.2	IS 7585	R	-do-	-do-	
-do-	Volatile acidity	5.3	IS 7585	R	-do-	-do-	
-do-	Esters as ethyl acetate	10 or Annex A	IS 3752	R	-do-	-do-	

-do-	Higher alcohols as amyl alcohol	11 or Annex A	IS 3752	R	-do-	-do-	
-do-	Aldehydes as acetaldehyde	12 or Annex A	IS 3752	R	-do-	-do-	
-do-	Total sulphur dioxide	9.2	IS 7585	R	-do-	-do-	
-do-	Free sulphur dioxide	9.1	IS 7585	R	-do-	-do-	
-do-	Copper (as Cu)	10	IS 7585	R	-do-	-do-	
-do-	Iron (as Fe)	11	IS 7585	R	-do-	-do-	
-do-	Extracts	6	IS 7585	R	-do-	-do-	
-do-	Tannins	8	IS 7585	R	-do-	-do-	
-do-	Methyl alcohol	16	IS 3752	R	-do-	-do	

Note-1: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control and submit his own levels of control in column 3 with proper justification for approval by BO Head.

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.