



## PRODUCT MANUAL FOR GLASS BEAKERS ACCORDING TO IS: 2619:2018/ISO 3819:2015

*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.	<b>Product</b>	:	IS 2619:2018/ISO 3819:2015
	<b>Title</b>	:	Glass Beakers
	<b>No. of Amendments</b>	:	Nil
2.	<b>Sampling Guidelines:</b>		
a)	<b>Raw material</b>	:	Beakers shall be made of borosilicate glass 3.3 in accordance with ISO 3585.
b)	<b>Grouping guidelines</b>	:	<p>Clause 3 covers following 3 types of Beakers:</p> <p>a) Low-form beaker with spout;</p> <p>b) Low-form beaker with spout, thick walled;</p> <p>c) Tall-form beaker with spout;</p> <p>Each type of beaker to be got tested for minimum and maximum capacity specified for that type to cover the entire series (see cl 4) of nominal capacities subject to availability of requisite manufacturing &amp; testing facilities.</p>
c)	<b>Sample Size</b>	:	<u>4 Nos</u>
3.	<b>List of Test Equipment</b>	:	Please refer ANNEX – <a href="#">A</a>
4.	<b>Scheme of Inspection and Testing</b>	:	Please refer ANNEX – <a href="#">B</a>
5.	<b>Possible tests in a day :</b>		
	<p>(i) <b>Capacity as per Cl 5</b></p> <p>(ii) <b>Dimensions as per Cl 7</b></p> <p>(iii) <b>Construction as per Cl 8</b></p>		
6.	<b>Scope of the Licence :</b>		

	“Licence is granted to use Standard Mark as per IS 2619:2018/ISO 3819:2015 with the following scope:	
	Name of the product	Glass beakers
	Type	Low-form beaker with spout/ Low-form beaker with spout, thick walled/ Tall-form beaker with spout
	Sizes	Nominal Capacity to be mentioned

**ANNEX A**  
**List of Test Equipment**

*Major test equipment required to test as per the Indian Standard*

Sl. No.	Tests used in with Clause Reference	Test Equipment
1	Capacity Cl 5	1) Weighing balance LC-0.1 mg 2) Weighing bottles different capacities 3) Thermometer LC-0.1 C 4) Arrangement for measurement of pressure 5) Vernier Caliper
2	Dimensions Cl 7	1) Vernier Calliper 2) Micrometer 3) Steel Scale 4) Ball ended micrometer
3	Construction Cl 8	1) Hot & Cold water bath 2) Oven 3) Basket 4) Vernier calliper

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

**ANNEX B**

**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 a calibration plan for the test equipment.

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

**3. LABELLING AND MARKING** –As per the Cl. 9.0 of IS **2619:2018**. The following shall be marked in addition –

- a) The date of manufacture or identification number on the packages;
- b) BIS Licence No. CM/L.....
- c) BIS website details: www.bis.gov.in.

**4. CONTROL UNIT** – For the purpose of this Scheme, Glass Beakers of same Nominal Capacity manufactured in one day from the same batch of raw material 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 Standard and covered by the licence should be marked with Standard Mark.

**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**

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
5	Capacity	5	IS 2619	R	Each Beaker	Each control unit	
6	Material (Visual Defects)	6	IS 2619	R	-do-		All the beakers shall Comply with the requirement
6	Material (Borosilicate glass 3.3)	6	IS 2619 ISO 3585	S	One	Each Consignment	No testing, may be done if the material consignment is ISI marked or accompanied by a test certificate according to the requirements of ISO 3585.
7	<b>Dimensions</b>						
7.1	General	7.1, Table 1 & 2	IS 2619	R	Each Beaker	Each control unit	
7.2	Radius at base	7.2	-do-	R	-do-	-do-	
7.3	Wall thickness	7.3, Table 1 & 2	-do-	R	-do-	-do-	
8	<b>Details of Construction</b>						
8.1	Base	8.1	-do-	R	Each beaker	Every fifth control unit	
8.2	Upper edge	8.2	-do-	R	-do-	-do-	
8.3	Spout	8.3	-do-	R	-do-	-do-	
8.4	Scale	8.4	-do-	R	-do-	-do-	
8.5	Thermal shock resistance	-	ISO 718	R	One	-do-	

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.