



**PRODUCT MANUAL
FOR ZIRAM SC
ACCORDING TO IS 11010 : 1984**

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 11010 :1984
	Title	:	ZIRAM SC
	No. of Amendments	:	04
2.	Sampling Guidelines:		
a)	Raw material	:	Ziram, Technical employed in the formulation of Ziram SC shall conform to IS 3900.
b)	Grouping guidelines	:	NA (No varieties mentioned for the product in IS)
c)	Sample Size	:	500 ml
3.	List of Test Equipment	:	Please refer ANNEX – A
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – B
5.	Possible tests in a day :		
	i. Description ii. Ziram content iii. Suspensibility iv. Colloidal content v. pH of suspension at 27 ⁰ C		
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 11010:1984 with the following scope:		
	Name of the product	:	ZIRAM (27%) SC

**ANNEX – A
TO PRODUCT MANUAL
FOR ZIRAM SC ACCORDING TO IS 11010 : 1984**

List of Test Equipment

Major test equipment required to test as per the Indian Standard

S. No.	Tests used in with Clause Reference	Test Equipments
1.	Ziram (zinc dimethyldithiocarbamate) content Cl. 2.2, Table 1	<p>CARBON DISULPHIDE METHOD Annex-A of IS 3900</p> <p>Lead Acetate Solution, Sulphuric- Acid-1.1N, Methanolic Potassium Hydroxide Solution-2N, Dilute Acetic Acid-30%, Standard Iodine Solution, Starch Indicator Solution, Phenolphthalein Indicator Solution, Distilled water, water bath, Carbon disulphide method apparatus as per Fig.1 / Fig.2 of IS 3900. Analytical balance.</p>
		<p>AMINE METHOD Annex-A of IS 3900</p> <p>Standard Hydrochloric Acid Solution-0.2N, Boric Acid Solution, Sulphuric Acid, Sodium Hydroxide Solution, Methyl Red indicator Solution, Titration stand with burette, 150 ml Round bottom Flask, reflux condenser, 1 litre round bottom flask fitted with a dropping funnel and a splash head which is connected to an upright bulb condenser fitted at its outlet with a rubber tube which dips inside a 500 ml conical flask. Analytical balance, Distilled water.</p>
2.	Suspensibility Cl 2.2, Table 1 Annex-A of IS 11010	Standard EDTA Solution-0.1M, Ammonia Solution-20%, Erichrome Black T, Standard Hard Water, Volumetric flask 1 litre, Erlenmeyer flask, measuring cylinder, Titration stand with burette, measuring cylinder
3.	Colloidal content Cl 2.2, Table 1 Annex-B of IS 11010	Standard EDTA Solution, Ammonia Solution, Erichrome Black T, Distilled Water, Volumetric flask, Centrifuge with tubes, pipette, measuring cylinder, titration set-up.
4.	pH of suspension at 27°C Annex-C of IS 11010	pH meter, Buffer tablet of two different type, Thermometer

List above is indicative only and may not be taken as exhaustive.

ANNEX – B

**SCHEME OF INSPECTION AND TESTING
FOR ZIRAM SC
ACCORDING TO IS 11010 : 1984**

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(s) as given in Schedule of the licence shall be stenciled/printed on each container of Ziram SC 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 Packing and marking shall be done as per the provision of the Indian Standard. 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”

4. CONTROL UNIT – For the purpose of this scheme, the entire quantity of material processed in a mixer in one operation 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.

5.2 On the basis of the test results, decision regarding conformity or otherwise of the material to the requirements of the specification shall be made as follows:

5.2.1 As sample shall be drawn from each control unit and tested for all the requirement of the specification. If the sample fails in any of the requirements except for ziram content and/or suspensibility, the entire control unit represented by the sample shall be considered unfit for the purpose of marking.

5.2.2 In case, the sample drawn from a control unit fails in the requirements of ziram content and suspensibility but passes in other requirements the entire quantity of the material in the control unit may be suitably reprocessed and the defect rectified. Such reprocessed material when tested again shall satisfy all the requirements of the specification before it is marked.

6. RAW MATERIAL – Ziram, technical employed in the manufacture of this material shall conform to IS 3900, specification for Ziram Technical. A sample from each consignment of the material received, shall be tested for its conformity to IS 3900 and records maintained. Alternately, each consignment shall be covered by test certificate from the supplier guaranteeing its conformity to IS 3900.

7. 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 method cl. ref.	Test method ISS		No. of Sample	Frequency	Remarks
2.1	Description	2.1	IS 11010	R	One	Each control unit	
2.2, Table 1 (i)	Ziram content	Appendix A	IS 3900	R	-do-	-do-	
2.2, Table 1 (ii)	Suspensibility	Appendix A	IS 11010	R	-do-	-do-	
2.2, Table 1 (iii)	Colloidal content	Appendix B	-do-	R	-do-	-do-	
2.2, Table 1 (iv)	pH of suspension at 27 ⁰ C	Appendix C	-do-	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: 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.