



**PRODUCT MANUAL FOR
INTEGRAL WATERPROOFING COMPOUNDS FOR
CEMENT MORTAR AND CONCRETE
ACCORDING TO IS 2645: 2003**

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 2645 : 2003
	Title	:	INTEGRAL WATERPROOFING COMPOUNDS FOR CEMENT MORTAR AND CONCRETE
	No. of Amendments	:	NIL
2.	Sampling Guidelines:		
a)	Raw material	:	-
b)	Grouping guidelines	:	Waterproofing compound of each Type (i.e. Powder form/ Liquid form) shall be tested separately to cover the tested type in the scope of licence.
c)	Sample Size	:	500 gm/500 ml for all tests
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) Setting time (ii) Chloride content		
6.	Scope of the Licence :		
	“Licence is granted to use Standard Mark as per IS 2645 : 2003 with the following scope:		
	Name of the product		INTEGRAL WATERPROOFING COMPOUNDS FOR CEMENT MORTAR AND CONCRETE
	Type		Powder form / Liquid form

ANNEX A**List of Test Equipment***Major test equipment required to test as per the Indian Standard*

S. No.	Tests used in with Clause Reference	Test Equipment
1.	Permeability to Water – Clause 3.1	Permeability Test Unit – containing <ul style="list-style-type: none"> • Specimen container ring • Water cell made of Brass • Water pressure vessel • Pressure regulator and Pressure gauge • Air compressor Rammer Unit- containing <ul style="list-style-type: none"> • Plunger • Tubular Guide Standard sand Cement Air conditioner Non porous Plate and Gauging Trowel
2.	Setting Time - Clause 3.2	Mould Room , Mould Closet Vicat Apparatus (containing needles) Weighing Balance Standard Weights Gauging Trowel Stop watch
3.	Compressive Strength - Clause 3.3	Mould Room , Mould Closet Weighing Balance, Standard Weights Gauging Trowel Standard sand Vibration machine Cube Mould Compression Testing Machine Curing tank Tachometer
4.	Chloride Content - Clause 3.4	Nitric Acid Sodium or Potassium Chloride Potassium Chromate Indicator Silver nitrate Nitro benzene Ferric Alum Ammonium Thiocyanate Balance – capable of 0.1 g LC General Glasswares (Volumetric flask, Pippette, Conical flask, Burette)

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 requirements of IS 2645: 2003.

4. CONTROL UNIT – The entire quantity of Integral Waterproofing Compound of the same type produced at a time and not exceeding 5000 kg/5000 litre 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 Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
3.1	Permeability to water	3.1, Annex-B	IS 2645	R	One	Every 10 th Control unit	#
3.2	Setting Time	3.2	IS 2645 IS 4031 (Part-5)	R	One	Each Control unit	-
3.3	Compressive strength	3.3	IS 2645 IS 4031 (Part-6)	S	One	Once in 3 Months	Sample shall be a composite sample representing total production over a period of three months
3.4	Chloride Content	3.4	IS 2645 IS 6925	R	One	Each Control unit	-

In case of failure, samples from the next three consecutive control units shall be tested and the original frequency may be restored if all the three samples pass.

Note-1: 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.