



उत्पाद मैनुअल

सीमेंट रंग रोगन

IS 5410:2013 के अनुसार

**PRODUCT MANUAL
FOR CEMENT PAINT
ACCORDING TO IS 5410:2013**

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो) अनुरूपता मूल्यांकन (विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity 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.

1.	मानक संख्या IS No.	:	5410:2013
	शीर्षक Title	:	सीमेंट रंग रोगन Cement Paint
	संशोधनों की संख्या No. of amendments	:	01
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	No specific requirement

b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Not Applicable.
c)	नमूने का परिमाण Sample Quantity	:	4 x 1 किलोग्राम 4 x 1 kg Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/Factory Surveillance (incase of market surveillance, effort may be made to procure therequired quantity of product sample, as far as possible since raw material sample may not be available in market)
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	कृपया Annex-ए देखें Please refer to Annex – A
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	कृपया Annex-B देखें Please refer to Annex – B
5.	एक दिन में संभावित परीक्षण Possible tests in a day		
	(i) Pot Life, cl.4.8 (ii) Freedom from organic binders, cl.4.1.1 (iii) Lead restriction, cl.4.4 (iv) Residue on sieve, cl.4.8 Note: This section is for the guidance of BIS Certification Officers/Technical Auditors of BIS Authorized Outside Surveillance Agencies (OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/auditor.		
6.	लाइसेंस का दायरा /Scope of the Licence:		
	IS 5410:2013 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेन्स निम्नलिखित कार्यक्षेत्र के लिए प्रदान किया जाता है “Licence is granted to use Standard Mark as per 5410: 2013 with the following scope:		
	Name of the product	सीमेंट रंग रोगन Cement Paint	
	Varieties/Type/Grades etc.	-	
	Optional requirements	-	

ANNEX-A

LIST OF TEST EQUIPMENTS (INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No.	Tests used in with clause Reference	Test Equipment/Chemical
1	Cl 4.1 Composition- Annex B	Equipment: Beaker, Long necked flasks, reflux condenser, platinum crucible or silica crucible, Gooch crucible, Carbon dioxide absorption train, electric muffle furnace (range upto 1200 C), Reagents: Distilled water, Ammonium chloride, Bromine water, Ammonium hydroxide solution, Ammonium oxalate solution, sulphuric acid, std. potassium permanganate, Neutral glycerin alcoholic solution, phenolphthalein indicator, potassium hydroxide, hydrochloric acid, Ammonium phosphate solution, potassium chromate indicator, std. silver nitrate solution.
2	Cl 4.1.1 Freedom from organic binders- Annex C	Evaporating dish, tinplate panel
3	Cl.4.2 Preparation for use	Testing panels, water, brush
4	Cl 4.4 Restriction from Lead IS 101(Part 8/ Sec 5)	Evaporating dish, weighing balance, oven, muffle furnace, desiccator, filter paper, platinum gauze electrode, con. nitric acid, ammonium nitrate, copper sulphate, hydrogen peroxide Or Oven, weighing balance, furnace, con. nitric acid, con. Sulphuric acid, ammonium acetate solution, glacial acetic acid, ammonium paramolybdate, ammonium nitrate. Or Oven, weighing balance, centrifuge (capable of 5000 rpm), mechanical shaker, water bath, hydrochloric acid, benzene, acetone, methyl alcohol, petroleum hydrocarbon solvent.
5	Cl.4.5, 4.8 & table 1, Fastness to Light, IS 101(Part 4/ Sec 3)	Concrete and Asbestos cement/gypsum board panels, Xenon Arc apparatus
6	Cl 4.6 Durability- Annex D	Concrete panels, brush, arrangement for exposure of panels
7	Table 1 (Cl. 4.8 & 7.1) Drying Time- Annex E	Testing panels, water, brush
8	Table 1 (Cl. 4.8 & 7.1) Finish-IS 101(Part 3/ Sec 4)	Coat meter, weighing balance, mass per litre cup, panels.
9	Table 1 (Cl. 4.8 & 7.1) Colour-IS 101(Part 4/ Sec 2)	Standard reference
10	Table 1 (Cl. 4.8 & 7.1) Residue on sieve- Annex F	Sieve 63-micron, brush, oven, analytical balance (accuracy 0.1 mg), desiccator.
11	Table 1 (Cl. 4.8 & 7.1) Resistance to dry rubbing - Annex G	Cement block, brush, white/black soft cambric cloth
12	Table 1 (Cl. 4.8 & 7.1) Water repellency- Annex H	Concrete panel, brush, wax bath, water spraying apparatus
13	Table 1 (Cl. 4.8 & 7.1) Pot life-Annex J	Concrete panel, water, brush
14	Table 1 (Cl. 4.8 & 7.1) Recoating Properties -Annex K	Concrete panel, water, brush

ANNEX B

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

1.1 It is expected that manufacturers (licensees/applicants) will implement a Quality Assurance Plan i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing the Standard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan defining the control unit (i.e. lot/batch etc.) and the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and submit the same to BIS Branch Office for information. The manufacturer shall comply with the same and maintain test records in accordance with para 2.4.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is the entire quantity of cement paint produced in a batch mixer at a time.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**.

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan. Alternatively, the manufacturer has the option of adherence to the quality plan as per levels of control recommended in column 3 of Table 1.

1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2. ENSURING COMPLIANCE THROUGH TESTING- It is expected that manufacturers (licensees/applicants) will establish a suitably equipped and staffed in house laboratory (In house testing facility) for testing at least those parameters of the Indian Standard which require routine testing for ensuring quality of the product. This includes in-process controls as may be defined and put in place by the manufacturer and testing parameters/requirements which can only be performed in the factory.

2.1 For the guidance of manufacturers, Table 1 giving the recommended levels of control is given below. Column 2 of Table 1 indicates routine tests where test equipment is required in house as "R" or other tests which can be subcontracted as "S". Subcontracting is permitted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.2 For MSME manufacturers, the requirement of maintaining a laboratory/in-house testing facility for routine tests (indicated as "R" in Column 2 of Table 1) is also optional.

2.2.1 MSME manufacturers may utilize common cluster based facilities as per guidelines for the utilization of cluster based test facilities by MSMEs or the provisions of Sharing of testing facilities or get testing done from BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.3 Large Scale manufacturers shall maintain an in-house laboratory equipped at least with test facilities for routine tests (indicated as “R” in Column 2 of Table 1), where different tests given in the specification shall be carried out in accordance with the method given in the specification. They shall also implement a calibration plan for the in-house test equipment.

2.3.1 Alternatively, in lieu of an in-house laboratory, large scale manufacturers can also utilize the provisions of Sharing of testing facilities as per the Guidelines for Grant of Licence available on BIS website www.bis.gov.in. (Under Conformity Assessment>Product Certification Process). Even for subcontracted tests, provisions for sharing of testing facilities can be utilized.

2.4 TEST RECORDS- The manufacturers maintaining an in-house laboratory or utilizing common cluster based facilities or shared test facilities shall maintain test records for the tests carried out to establish conformity. For the tests being subcontracted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports issued by the laboratories shall be available for inspection by BIS.

3. PACKING AND MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on each plastics feeding bottle and its packaging along with the other marking details as required by the standard, provided always that the material so marked conforms to each requirement of the specification.

3.1 Packing and Marking shall be done as per the Indian Standard.

3.2 Additional Marking requirements: The material shall also be marked with the following additional requirement on each bottle and each package:

a) “For BIS certification details please visit www.bis.gov.in”

4. REJECTION - All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark. 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	
Clause	Requirement	Test Method Reference		No. of Samples	Frequency
4.1	Composition	Annex B of IS 5410:2013	R	One	Every 10 th Control unit
4.1.1	Freedom from Organic binders	Annex C of IS 5410:2013	R	-do-	Each Control Unit
4.2	Preparation for use	IS 5410:2013	R	-do-	Each Control Unit
4.4	Restriction from Lead	IS 101(Part 8/ Sec 5)	R	-do-	Each Control Unit
4.5	Fastness to light	IS 101(Part 4/ Sec 3)	S	-do-	Once in three month
4.6	Durability	Annex D of IS 5410:2013	S	-do-	Once in a year between third week of January and first week of April
4.7	Keeping property	All the above mentioned tests of table 1 as per IS 5410: 2013	R	-do-	Once in six month
Table 1 (Cl. 4.8& 7.1)	Drying time, hard dry	Annex E of IS 5410:2013	R	-do-	Each Control Unit
-do-	Finish	IS 101(Part 3/ Sec 4)	R	-do-	Each Control Unit
-do-	Colour	IS 101(Part 4/ Sec 2)	R	-do-	Each Control Unit
-do-	Residue on sieve	Annex F of IS 5410:2013	R	-do-	Each Control Unit
-do-	Resistance to dry rubbing	Annex G of IS 5410:2013	R	-do-	Each Control Unit
-do-	Water repellency	Annex H of IS 5410:2013	R	-do-	Each Control Unit
-do-	Pot life of mixed paint	Annex J of IS 5410:2013	R	-do-	Each Control Unit
-do-	Recoating properties	Annex K of IS 5410:2013	R	-do-	Each Control Unit