उत्पाद मैन्युअल

तैयार मिश्रित रंग रोगन, समापन, प्राइमिंग, पलस्तर, भारतीय मानक रंग नं 361 फीका पत्थर और रंग नं 631 फीका ग्रे, सफेद एवं धूमिल सफेद के लिए भारतीय मानक 109: 2017 के अनुसार

PRODUCT MANUAL FOR READY MIXED PAINT, FINISHING, PRIMING, PLASTER, TO INDIAN STANDARD COLOUR NO. 361 LIGHT STONE AND NO. 631 LIGHT GREY, WHITE AND OFF - WHITE ACCORDING to IS 109: 2017

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 underScheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations,2018 for variousproducts. The document may also be used by prospective applicants desirous of obtaining BIS certification.

1.	मानक संख्या **IS No.**	:	IS 109: 2017
	शीर्षक **Title**	:	**तैयार मिश्रित रंग रोगन, समापन, प्राइमिंग, पलस्तर, भारतीय मानक रंग नं 361 फीका पत्थर और रंग नं 631 फीका ग्रे, सफेद एवं धूमिल सफेद के लिए** Ready mixed paint, finishing, priming, plaster, to Indian Standard colour no. 361 light stone and no. 631 light grey, white and off - White
	संशोधनों की संख्या **No. of amendments**	:	Nil
2.	नमूना दिशानिर्देश **Sampling Guidelines**		
a)	कच्चा माल **Raw material**	:	No specific requirement.

b)	समूहीकरण दिशानिर्देश **Grouping Guidelines**	:	Testing of any one colour shall cover all colours, provided the manufacturer declares the same base formulation. During operation of the licence, BOs shall ensure that all the samples are tested for all applicable requirements on the product, and varieties covered in the licence are tested in rotation.
c)	नमूने का परिमाण **Sample Quantity**	:	1. 4 x 1 L, and 2. Approved sample for comparison. *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 (in case of market surveillance, effort may be made to procure the required quantity of product sample, as far as possible since raw material sample may not be available in market)*
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर **Parameters to be Declared in Test Request**	:	1. Colour/Shade (IS Colour No. 361 Light Stone / 631 Light Grey / White / Off-White) 2. Approved sample details, as applicable / Specified colour as per IS 5 3. Declared wet opacity value 4. Date of Manufacturing and shelf life
3.	परीक्षण उपकरणों की सूची **List of Test Equipment**	:	Please refer to Annex-A
4.	निरीक्षण और परीक्षण की स्कीम **Scheme of Inspection and Testing**	:	Please refer to Annex-B
5.	एक दिन में संभावित परीक्षण **Possible tests in a day**		
	Lead restriction, Consistency, Mass, Colour, Wet opacity, Flash point, Water content. *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:**	
	"Licence is granted to use Standard Mark as per IS 109: 2017 with the following scope:	
	Name of the product	Ready mixed paint, finishing, priming, plaster, to Indian Standard colour no. 361 light stone and no. 631 light grey, white and off - white
	Colour (based on the base formulation)	Indian Standard colour no. 361 light stone / Indian Standard colour no. 631 light grey / White / Off – white.

BUREAU OF INDIAN STANDARDS
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Annex-A
List of Test Equipment

(INDICATIVE LIST, FOR GUIDANCE ONLY)

Clause	*Requirement*	**Test Equipment**
4.2	Lead Restriction	Electrolysis method 1. Tared evaporating dish 2. Muffle furnace 3. Desiccator 4. Glassware 5. Chemicals and reagents 6. Fine texture paper 7. Platinum gauze anode 8. Oven 9. Weighing balance Molybdate method 1. Chemicals and reagents 2. Glassware 3. Paper from pad 4. Porcelain filtering crucible 5. Weighing balance Sulphide method 1. Chemicals and reagents 2. Weighing balance Atomic Absorption Spectroscopy method (AAS) 1. Atomic absorption spectrophotometer 2. Muffle furnace 3. Hot plate 4. Glassware 5. Porcelain crucible or porcelain dish 6. Dropping bottle 7. Chemicals and reagents Inductively Coupled Plasma-Optical Emission Spectrometry (ICP-OES) 1. Electric hot plate 2. Microwave extraction apparatus 3. Sample vessels (closed) 4. Glassware 5. Analytical balance 6. Chemicals and reagents

4.3, Table 1, i)	Drying time	<u>Manual Test Method</u> 1. Silver sand (small transparent glass spheres) 2. Brush 3. Stop-watch or stop-clock 4. Brush, paint 5. Power cable paper 6. Test panel 7. Well-ventilated chamber, in absence of direct sunlight and under standard atmospheric conditions of (27 ± 2) ℃ and (60 ± 5) percent relative humidity 8. Camel hair brush 9. Special test paper (Method-B) 10. Steel cylinder (Method-B) 11. Mass of 2.85 kg (Method-B) <u>Instrumental Test Method</u> <u>Method C</u> 1. Straight-line drying-time recorder 2. Magnifying glass 3. Glass strips <u>Method D</u> 1. Circular Drying-Time Recorder 2. Transparent Template 3. Magnifying glass
4.3, Table 1, ii)	Finish	1. Concrete or wooden panel 2. Brush/ spray
4.3, Table 1, iii)	Consistency	1. Paint brush 2. Panels
4.3, Table 1, iv)	Mass	1. Ordinary laboratory apparatus and glassware 2. Pycnometer 3. Analytical balance 4. Thermometer 5. Temperature control unit
4.3, Table 1, v)	Colour	1. Illumination for colour matching 2. Observer 3. Test panels and reference standards 4. Drying arangement
4.3, Table 1, vi)	Wet opacity	<u>Method Using Black and White Charts</u> <u>By Spreading capacity</u> 1. Substrate 2. Reflectometer 3. Film applicators 4. Template or die stamp

		<u>By Spectrophotometer</u> 1. Substrate: black and white paper charts 2. Reflectance measuring instrument (Spectrophotometer) 3. Doctor blade/bird/bar type film applicators 4. Computer and software 5. Smooth and clean glass plate or vacuum plate 6. Stainless steel spatula <u>Method Using Polyester Film</u> 1. Substrate 2. Film applicators 3. Reflectometer 4. Template or die stamp 5. Test plates 6. Conditioning arrangement <u>Pfund Cryptometer Method</u> 1. Pfund cryptometer
4.3, Table 1, vii)	Flash point	1. Test cup 2. Bath 3. Thermometers 4. Support
4.3, Table 1, viii)	Water Content	<u>Karl Fischer Method</u> 1. Apparatus — As prescribed in 6 of IS 2362 2. Karl Fischer reagent as prescribed in 5.7 of IS 2362 3. Weighing balance 4. Chemicals and Reagents <u>Dean and Stark Method</u> 1. Apparatus — As prescribed in 3.1 to 3.5 of IS 1211 2. Chemicals and Reagents 3. Weighing balance 4. Glassware
4.3, Table 1, ix)	Resistance to Alkali	1. Test Panels of asbestos cement sheet 2. Reagents 3. Wet blotting paper 4. Glassware
4.3, Table 1, x)	Resistance to Water	1. Test Panels of glass 2. Brush

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

Annex-B

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

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

1.2 The manufacturers shall define a Quality Assurance Plan (QAP) defining the control unit (i.e. lot/batch etc.), the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and declare the arrangement for testing i.e. whether in-house or subcontracting/sharing for each applicable test and submit the same to BIS Branch Office for information. The manufacturer shall comply with the QAP and maintain test records in accordance with para 2.1.

1.3 **RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT**:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: *Ready mixed paint of same formulation (and colour) produced during a day.*

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommendedlevels of control are given in Table 1. Manufacturer has the discretion of declaring their own levels of control or accept the levels of control given in this document.

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.

2. ENSURING COMPLIANCE THROUGH TESTING- manufacturers shall ensure compliance of their products to all the requirementsof the Indian Standard for which they may have in-house test facilities. However, there is no obligation to maintain in-house laboratory. Licensee may use alternative arrangements for tests of the production as per the declared QAP. Various alternatives are available for operation of BIS certification as given below and the relevant guidelines for availing such relaxations by the manufacturers, as amended from time to time, are to be referred:

i) Shared testing resources like common facility,

ii) Cluster based testing facility,

iii) Sub-contracting to outside laboratories which may either be:

a) BIS recognised/empanelled laboratories, or

b) Any accredited laboratory as per ISO/IEC 17025

2.1 **TEST RECORDS**- The manufacturers shall maintain test records for the tests carried out (either in-house or at a sub-contracted or at shared test facility) to establish conformity of the product to the Standard for operation of licence. For the tests being subcontracted or conducted at a shared test facility,test results issued by the laboratories or test facilities, shall be made available for inspection by BIS.

3. PACKING AND MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated (including BIS licence no. CM/L_____) legibly and indelibly on each container or on a label applied to the container, provided always that the material so marked conforms to each requirement of the specification.

4. Packing and marking shall be done as per the provision of the Indian Standard. In addition, the container or the label applied to the container shall be marked with the following:

a) BIS website details: "For BIS certification details please visit www.bis.gov.in"

5. REJECTION - 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
(Recommended Levels of Control by BIS - For Guidance Only)

(1)				*(3)*		
Test Details				***Levels of Control***		
Clause	***Requirement***	***Test Methods***		***No. of Sample***	***Frequency***	***Remarks***
		Clause	***Reference***			
4.1	Composition	4.1	IS 109	One	Each control unit	-
4.2	Lead Restriction	-	IS 101 (Part 8/Sec 5)	One	Once in a month	-
4.3, Table 1, i)	Drying time	-	IS 101 (Part 3/Sec 1)	One	Each control unit	-
4.3, Table 1, ii)	Finish	-	IS 101 (Part 3/Sec 4)	One	Once in a week	-
4.3, Table 1, iii)	Consistency	B	IS 109	One	Each control unit	-
4.3, Table 1, iv)	Mass	-	IS 101 (Part 1/Sec 7)	One	Each control unit	-
4.3, Table 1, v)	Colour	-	IS 101 (Part 4/Sec 2)	One	Each control unit	-
4.3, Table 1, vi)	Wet opacity	-	IS 101 (Part 4/Sec 1)	One	Once in a month	-
4.3, Table 1, vii)	Flash point	-	IS 101 (Part 1/Sec 6)	One	Each control unit	-
4.3, Table 1, viii)	Water Content	-	IS 101 (Part 2/Sec 1)	One	When water is suspected to be present or Once in a month or Upon change in composition, whichever is earlier	
4.3, Table 1, ix)	Resistance to Alkali	C	IS 109	One	Once in a month	-
4.3, Table 1, x)	Resistance to Water	D	IS 109	One	Once in a month	-
4.3, Table 1, xi)	Keeping Properties	-	IS 101 (Part 6/Sec 2)	One	Once in a year	-