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IS : 2338 (Part II) - 1967

Indian Standard
**CODE OF PRACTICE FOR
FINISHING OF WOOD AND WOOD-BASED
MATERIALS
PART II SCHEDULES**

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

CODE OF PRACTICE FOR FINISHING OF WOOD AND WOOD-BASED MATERIALS

PART II SCHEDULES

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Indian Standard
**CODE OF PRACTICE FOR
FINISHING OF WOOD AND WOOD-BASED
MATERIALS
PART II SCHEDULES**

0. FOREWORD

0.1 This Indian Standard (Part II) was adopted by the Indian Standards Institution on 28 June 1967, after the draft finalized by the Painting, Varnishing and Allied Finishes Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 With a view to provide guidance with regard to the finishing work of wood and wood-based materials, the Indian Standards Institution is bringing out the Indian Standard code of practice for finishing of wood and wood-based materials (IS : 2338) which is being published in two parts. This part [IS : 2338 (Part II)-1967] deals with the painting schedules. The first part of this standard covers the operations and workmanship in finishing of wood and wood-based materials.

0.3 In the formulation of this standard due weightage has been given to international co-ordination among the standards and practices prevailing in different countries in addition to relating it to the practices in the field in this country. This has been met by deriving assistance from the following publications:

N.Z : S.S. CP 5 Code of practice for painting. New Zealand Standards Institute.

B.S.CP 231 : 1952 Painting. British Standards Institution.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (revised).

1. SCOPE

1.1 This standard (Part II) lays down schedules for finishing of wood and wood-based materials with paints, varnishes, polishes and other organic coatings.

2. TERMINOLOGY

2.1 For the purpose of this standard, the terms pertaining to painting materials, finishes, tools and accessories as given in IS : 1303-1963* and IS : 707-1958† shall apply.

3. NECESSARY INFORMATION

3.1 The necessary information required for the efficient application of finishes on wood and wood-based materials shall be provided as given in 3 of IS : 2338 (Part I)-1967‡.

4. SCHEDULES FOR FINISHING WOODWORK

4.1 New Woodwork

4.1.1 Preparation — The surface shall be prepared as specified in IS : 2338 (Part I)-1967‡. However, the following points shall be noted:

- a) The surface shall be cleaned and smoothened with abrasive paper,
- b) The surface shall be primed,
- c) Knots shall be treated with two coats of shellac knotting, and
- d) Deep holes shall be filled with plastic wood conforming to IS : 423-1961§.

4.1.2 Finish — The different coats as specified in Tables 1 and 2 shall be applied along with stopping and filling where necessary for the corresponding type of finish.

4.2 Maintenance Work — In the case of painting or finishing relating to maintenance work, the principles given in Table 3 should generally be adopted.

*Glossary of terms relating to paints (revised).

†Glossary of terms applicable to timber, plywood and joinery.

‡Code of practice for finishing of wood and wood-based materials : Part I Operations and workmanship.

§Specification for plastic wood for joiners filler (revised).

TABLE 1 SCHEDULES FOR FINISHING NEW WOODWORK — INTERIOR

(Clause 4.1.2)

SL No.	FINAL FINISH REQUIRED	PRIMER (ONE OR TWO COATS AS REQUIRED)	UNDERCOAT	FIRST FINISHING COAT	SECOND FINISHING COAT
(1)	(2)	(3)	(4)	(5)	(6)
i)	Enamel	IS : 103-1962 or IS : 3536E-1966 or IS : 106-1962 or IS : 3585-1966	IS : 133-1965	IS : 133-1965	IS : 133-1965
ii)	Oil Gloss	IS : 103-1962 or IS : 3636E-1966 or IS : 3585-1966	IS : 3539E-1966 or IS : 113-1950 or IS : 114-1950	IS : 3537E-1966 or IS : 129-1950	IS : 3537E-1966 or IS : 129-1950
iii)	Flat	IS : 103-1962 or IS : 3536E-1966 or IS : 3585-1966	IS : 133-1965 or IS : 3539E-1966 or IS : 113-1950 or IS : 114-1950	IS : 137-1965 or IS : 3537E-1966	IS : 137-1965 or IS : 3537E-1966
iv)	Varnish	IS : 345-1952	IS : 338-1952 or IS : 339-1952	IS : 337-1952 or IS : 524-1954 or IS : 525-1954	IS : 337-1952 or IS : 524-1954 or IS : 525-1954
v)	Grained Work	—	Merging type glaze or Stains (see Appendix B)	Merging type glaze or Stains	IS : 337-1952 or IS : 524-1954 or IS : 525-1954

NOTE 1 — For finishes (i), (ii) and (iii) fillers conforming to IS : 426-1961 or IS : 110-1950 may be applied after the prime coat as required.

NOTE 2 — When proprietary materials are used the finishing and the adjuncts shall be obtained from the same manufacturer.

NOTE 3 — When French polish is used for finishing, it shall conform to IS : 348-1952 and the finishing shall be carried out as given in IS : 2338 (Part I)-1967.

NOTE 4 — Titles of Indian Standards referred to in this table are given in Appendix A.

TABLE 2 SCHEDULES FOR FINISHING NEW WOODWORK — EXTERIOR

(Clause 4.1.2)

SL No.	FINAL FINISH REQUIRED	PRIMER	UNDERCOAT	FIRST FINISHING COAT	SECOND FINISHING COAT
(1)	(2)	(3)	(4)	(5)	(6)
i)	Enamel	IS : 103-1962 or IS : 3536E-1966 or IS : 106-1962 or IS : 3585-1966	IS : 2932-1964 or IS : 2933-1964	IS : 2932-1964 or IS : 2933-1964	IS : 2932 - 1964 or IS : 2933 - 1964
ii)	Oil Gloss	IS : 103-1962 or IS : 3536E-1966 or IS : 3585-1966	IS : 3539E-1966 or IS : 111-1950 or IS : 112-1950	IS : 3631E-1966 (Alkyd) or IS : 117-1964 or IS : 119-1962 or IS : 124-1962 or IS : 125-1962 or IS : 127-1962 or IS : 128-1962 or IS : 1188-1957	IS : 3631E-1966 (Alkyd) or IS : 117-1964 or IS : 119-1962 or IS : 124-1962 or IS : 125-1962 or IS : 127-1962 or IS : 128-1962 or IS : 1188-1957
iii)	Flat	Proprietary materials to be used.			
iv)	Varnish	IS : 345-1952	IS : 339-1952	IS : 524-1954	IS : 524-1954
v)	Grained Work	—	Merging type glaze or Stains (see Appendix B)	IS : 524-1954	IS : 524-1954

NOTE 1 — For finishes (i), (ii) and (iii) fillers conforming to IS : 426-1961 or IS : 110-1950 may be applied after the prime coat as required.

NOTE 2 — When proprietary materials are used the finishing and the adjuncts shall be obtained from the same manufacturer.

NOTE 3 — Titles of Indian Standards referred to in this table are given in Appendix A.

TABLE 3 RECOMMENDED PRACTICE FOR MAINTENANCE PAINTING

(Clause 4.2)

SL No.	CONDITION OF SURFACE				CLEANING AND PAINTING PRACTICE
	Blistering	Cracking	Check- ing	Chalk- ing	
(1)	(2)	(3)	(4)	(5)	(6)
i)	Nil	Nil	Nil	Yes	Clean; rub with sand paper, apply one reviver coat
ii)	Nil	Nil	Yes	Nil	Flat down to remove checked film; clean; apply one or two reviver coats
iii)	Nil	Yes, localized	Nil	Nil	Rub down with steel wool/sand paper to remove cracked/crazed film; touch up with primer where damaged; apply two coats of finishing
iv)	Yes, localized	Nil	Nil	Nil	Scrape and rub down (with sand paper) the spot to bare wood, feather out the edges of paint, allow the surface to breathe out; touch up with primer; apply two coats of finishing (with a coat of under-coat, if necessary)
v)	Yes, localized	Nil	Nil	Yes	Treatments in (i) and (iv) combined
vi)	Yes, localized	Nil	Yes	Nil	Treatments in (ii) and (iv) combined
vii)	Yes, localized	Yes, deep	Nil	Nil	Completely remove paint to bare wood and follow the full schedule
viii)	Nil	Yes, deep	Nil	Nil	do
ix)	Yes, heavy	Nil	Nil	Nil	do

NOTE — Quality of paints for interior and exterior as in Tables 1 and 2.

APPENDIX A

(Tables 1 and 2)

INDIAN STANDARDS ON PAINTS, ENAMELS,
FILLERS, ETC

A-1. The titles of Indian Standards on paints, enamels, fillers, etc, referred to in Tables 1 and 2 are given below:

IS : 103-1962	Specification for ready mixed paint, brushing, white lead, for priming and general purposes (<i>revised</i>)
IS : 106-1962	Specification for ready mixed paint, brushing, priming, for enamels, for use on wood (<i>revised</i>)
IS : 110-1950	Specification for ready mixed paint, brushing, grey filler, for enamels, for use over primers
IS : 111-1950	Specification for ready mixed paint, brushing, under-coating, exterior to Indian Standard colours
IS : 112-1950	Specification for ready mixed paint, spraying, under-coating, exterior, to Indian Standard colours
IS : 113-1950	Specification for ready mixed paint, brushing, under-coating, interior, to Indian Standard colours
IS : 114-1950	Specification for ready mixed paint, spraying, under-coating, interior, to Indian Standard colours
IS : 117-1964	Specification for ready mixed paint, brushing, finishing, exterior, semi-gloss, for general purposes, to Indian Standard colours
IS : 119-1962	Specification for ready mixed paint, brushing, finishing, semi-gloss, for general purposes, to Indian Standard colours
IS : 124-1962	Specification for ready mixed paint, brushing, finishing, semi-gloss, for general purposes, to Indian Standard colour No. 105 Oxford blue (<i>revised</i>)
IS : 125-1962	Specification for ready mixed paint, brushing, finishing, semi-gloss, for general purposes, to Indian Standard colour No. 106 Royal blue (<i>revised</i>)
IS : 127-1962	Specification for ready mixed paint, brushing, finishing, exterior, semi-gloss, for general purposes, white (<i>revised</i>)
IS : 128-1962	Specification for ready mixed paint, brushing, finishing, semi-gloss, for general purposes, black (<i>revised</i>)

IS : 2338 (Part II) - 1967

IS : 129-1962	Specification for ready mixed paint, brushing, finishing, interior, oil gloss, for general purposes, to Indian Standard colours
IS : 133-1965	Specification for enamel, interior (a) undercoating, (b) finishing, colour as required (<i>revised</i>)
IS : 137-1965	Specification for ready mixed paint, brushing matt or egg shell flat, finishing, interior, to Indian Standard colour, as required (<i>revised</i>)
IS : 337-1952	Specification for varnish, finishing, interior
IS : 338-1952	Specification for varnish, undercoating, exterior, natural resin
IS : 339-1952	Specification for varnish, undercoating, exterior, synthetic resin
IS : 345-1952	Specification for wood filler, transparent, liquid
IS : 348-1952	French polish
IS : 426-1961	Specification for paste filler for colour coats (<i>revised</i>)
IS : 524-1954	Specification for varnish, finishing, exterior, type 1 (synthetic) (<i>tentative</i>)
IS : 525-1954	Specification for varnish, finishing, exterior, and general purposes, type 2 (<i>tentative</i>)
IS : 1188-1957	Specification for ready mixed paint, brushing, oil gloss, genuine zinc oxide, for general purposes
IS : 2338 (Part I)-1967	Code of practice for finishing of wood and wood-based materials: Part I Operations and workmanship
IS : 2932-1964	Specification for enamel, synthetic, exterior, type 1 (a) undercoating, (b) finishing, colour as required
IS : 2933-1964	Specification for enamel, exterior, type 2 (a) undercoating, (b) finishing, colour as required
IS : 3536E-1966	Specification for ready mixed paint, brushing, wood primer, pink
IS : 3537E-1966	Specification for ready mixed paint, finishing, interior, for general purposes, to Indian Standard colours
IS : 3539E-1966	Specification for ready mixed paint, undercoating, for use under oil finishes, to Indian Standard colours, as required
IS : 3585-1966	Specification for ready mixed paint, aluminium, brushing, priming, water resistant, for woodwork
IS : 3631E-1966	Specification for ready mixed paint, finishing, exterior, (i) Alkyd and (ii) Non-alkyd, for general purposes, to Indian Standard colours

APPENDIX B

[Tables 1 and 2 (Item v)]

MERGING TYPE GLAZE AND STAINS

B-1. MERGING TYPE GLAZE

B-1.1 Merging Type Glaze — (which facilitates the blending of various colours after application) is a transparent pigment bound with a medium having good flowing properties, thinned with volatile solvent.

B-2. STAINS

B-2.1 Stains are soluble fast dyes or transparent, pigments, dissolved or suspended in an oil, water or spirit medium. The consistency shall be such as to ensure complete penetration.

B-2.2 Stains are supplied either in liquid form ready for application or as powders to be dissolved in a suitable medium (water, spirit or oil) as indicated. If the medium is oil, driers and thinners may also be needed.

B-2.3 Water stains are solutions of vegetable dyes in water. Solution of certain chemicals in water, although not normally classed as water stains, are often used to darken wood, such as floor-boards. Potassium permanganate is a well-known example.

B-2.4 Spirit stains are solutions of spirit-soluble dyes in industrial methylated spirit.

B-2.5 Oil stains may be solutions of oil-soluble dyes in linseed oil but usually, to give a wider range of colours, they consist of insoluble, transparent semi-pigments ground in linseed oil and thinned with turpentine or other solvents. Sometimes, wax is added to make the stain less penetrating.

B-2.6 Oil stains are sometimes supplied mixed with varnish and sold as varnish stains, but where it is desired to enhance and not to conceal the appearance of the wood, better results can be obtained by staining and varnishing separately.

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