

SECTION L: PAINTING

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1- GENERAL

- 1- All materials shall be delivered on-site intact in the original drums or tins and shall be mixed and applied strictly in accordance with the manufacturer's instructions and to the approval of the Project Manager.
- 2- All cement paints and washable distemper shall be applied by brush; emulsion paints shall be applied by means of a brush then rolled. All enamel paints are applied by brush or sprayed, and bitumen and bituminous base aluminum paints are applied by brush. Before application of any paint, adjoining surfaces shall be covered by cloth, or paper and wherever paints stains it shall be removed before leaving the work on the same day.
- 3- The only addition, which will be allowed to be made locally will be liquid thinners supplied or recommended by the manufacturers and none shall be, thinned more than approved by the Engineer.

Preparation and priming of surfaces

1. Concrete and Cement rendered surfaces shall be smooth and free from defects and shall be allowed to dry out thoroughly. Surfaces shall be thoroughly brushed down and left free from all efflorescence, dirt, and dust.
2. All such surfaces, which are to be finished with oil or enamel paint, shall be primed with two coats of alkali-resisting primer.
3. Plaster surfaces shall be perfectly smooth and free from defects. All such surfaces shall be allowed to dry for a minimum period of four weeks. Surfaces shall be stopped with approved plaster compound, rubbed down flush, thoroughly brushed down, and left free from all efflorescence, dirt, and dust.
4. Fair-faced surfaces shall be dry, brushed down, and free from dust or dirt and shall be treated with an approved alkali-resisting primer (for plastic emulsion).
5. Metalwork generally shall be thoroughly wire brushed to remove all scale, rust, and sandpapering shall be done before any painting is done. Where severe rust exists, the special anti-rust primer must be used. After painting, it shall be stored in a covered shed and 24" above ground.
6. Shop primed surfaces shall have bare places touched up with an approved metal primer.
7. Un-primed surfaces shall be given one coat of primer as last.
8. Galvanized surfaces, which are thoroughly weathered, shall be, brushed down with white spirit, washed down, and given one coat of zinc chromate primer.
9. Bituminous-coated surfaces shall be given as isolating coats of shellac knotting followed by an approved metal primer.
10. Woodwork generally shall be rubbed down, given one coat of shellac knotting, one coat wood self-knotting primer, and all cracks, nail holes, defects, uneven surfaces, etc., stopped and faces up with hard stopping rubbed down flush.
11. Before oiling woodwork, all stains must be removed and uniform color obtained and filled.

Colors and priming:

The priming undercoats and finishing coats shall each be of different tints and the priming and undercoats shall be of the correct types and tints to suit the respective finishing coats in accordance with the following instructions.

All finishing coats shall be of colors and tints selected by the Architect. The paintwork shall have a uniform finish and all paint for external work shall be exterior quality only.

Rubbing Down:

1. Each coat of paint shall be properly dried and shall be well rubbed down with fine glasspaper before the next coat is applied.
2. The paintwork shall be finished smooth and free from brush marks.
3. Samples Cards of all paints, etc., shall be submitted to and samples prepared for approval of the Architect before laying on, and such samples, when approved, shall become the standard for work.

Program:

The contractor shall so arrange his program of work that all other Trades are completed and away from the area to be painted when the painting begins.

Ironmongery, Protection, and Cleaning Up:

1. All ironmongery shall be removed from the joinery before painting is commenced and shall be cleaned and renovated if necessary and re-fixed after completion of the painting.
2. Cover up all floors, etc., with non-resinous sawdust or other approved covering when executing and all painting and decorating work.
3. Paint splashes, spots, and stains shall be removed from floors, woodwork, etc., and damaged surface touched up and the whole of the work left clean upon completion.

Materials:

1. All paint materials of the specified brand shall be obtained from the manufacturer or an authorized dealer. All sealers, primers, and undercoating is to be obtained from the makers of the finishing materials and are to be in accordance with their recommendation for the particular finish required.
2. For use on knots and resinous portions of the woodwork. Stopping and Filling composed of parts putty to one part of stiff white lead.
3. Lacquer. Approved polyurethane eggshell clear lacquer applied in accordance with the manufacturer's instructions.
4. Polish shall be an approved brand of wax polish.
5. Oil shall be the best quality linseed oil.
6. Filler for polished or oiled surfaces to be Beeswax filler.
7. All woodwork, as specified or instructed shall be treated after cutting and preparation but before assembly or fixing with three coats of a solution consisting of one part of

Atlas "A" wood preservative brown grade or similar, to three parts of water. The solution is to brush in all faces of all timbers unless exposed to view and painted. The contractor shall note that this solution is HIGHLY POISONOUS and shall take all necessary precautions and instruct his workmen accordingly.

Paint Application:

Painting Items as described hereafter shall comprise the following, and shall all include for preparing and priming surfaces as above described:

Cement Paint: Apply two coats.

Plastic Emulsion: Apply a minimum of three coats, using a thinning medium or water only if and as recommended by the manufacturer. An approved plaster primer tinted to match may be substituted for the first coat.

Paint: Apply two undercoats and one finishing coat of enamel gloss oil paint.

Flat oil paint: Apply two coats of flat oil paint, using the thinning medium in accordance with the manufacturer's instructions.

Oil: Apply two coats of linseed oil.

Wax Polish: Apply a minimum of two coats for approval.

Lacquer: Apply three coats of Polythene lacquer as described, to approval.

Prime: Prepare and prime only before fixing.

2- ENAMEL PAINT

The primer and paint shall be of approved quality and approved by the Architect. These materials shall be ready-mixed and in sealed tins with the manufacturer's name, color and instruction painted in the container.

Preparation of Surface:

1. All surfaces to be painted shall be planed and thoroughly sandpapered, first by using No. 120 sandpaper. Ordinary putting shall fill up nail holes, cracks, or others inequalities. Putting shall be made up of 2 parts of best quality whiting (absolutely dead stone lime) 1 part of white lead mixed in linseed oil and kneaded (3 oz. of linseed oil to 1 lb. of whiting).
2. A primer coat shall be locally applied in holes, cracks, etc. before putty is applied. The putty/paste fillers shall be of approved quality and manufacture and shall be applied to the surface with a knife or other sharp-edged tools after the priming coat as well as after each undercoat. After the surface is dry, it shall be sanded paper by using No. 60 sandpaper.
3. The surface so prepared shall be painted with one coat of primer. The primed surface when dry shall be sandpapered by using No. 100 sandpaper.

4. The primed surface so prepared shall be painted with one coat of selected enamel using a bristle brush and not horsehair ones. The paint shall be applied in the thinnest possible layers with parallel strokes. Care shall be taken to ensure the surface is free from dust or other foreign material before priming or enameling the surface. No painting shall splash on the floor, wall jambs, sill, or another part of the building.

Application:

On Woodwork

1. After preparing and after the priming coat has been applied a topcoat shall be applied.
2. The primed surface so prepared shall be painted with one coat of selected enamel using a bristle brush and not horsehair ones. The paint shall be applied in the thinnest possible layers with parallel strokes.
3. Another coat shall be applied after the previous coat is dry. Care should be taken that dust or other foreign materials do not settle or otherwise disfigure the various coats. The same brand of materials will be used for various coats.
4. The paint shall be used and applied as per the manufacture's printed instruction.
5. The paints shall be applied with bristle brushes and not horsehair ones.
6. The paints shall be applied in the thinnest possible layers with parallel drawings, no flowing down shall be allowed.
7. Painting to false ceiling and acoustic materials such as thermo Cole, perforated acoustic tile, soft board, etc. shall be done by spray painting only.
8. The Engineer before the commencement of work shall approve a sample of workmanship.

On metal surface

1. The paint shall be continuously stirred in the container so that its consistency is kept uniform throughout.
2. The painting shall be laid on evenly smoothly by means of crossing and laying - off. The crossing and laying off consists of covering the area with paint, brushing the surface hard for the first time, and then brushing alternatively in opposite directions, two or three times, and then finally brushing lightly in a direction at right angles to the same.
3. In this process no brush marks shall be left after the laying-off if finished. The full process of crossing and laying - off will constitute one coat.
4. Where so stipulated, the painting shall be carried out using spray machines suited for the nature and location of the work to be carried out. Only skilled and experienced workmen shall be employed for this class of work.
5. Paints used shall be brought to the requisite consistency by adding suitable thinner. Spraying shall be carried out only in dry conditions. No exterior painting shall be done in damp foggy or rainy weather.
6. Surfaces to be painted shall be clean, dry, smooth, and adequately protected from dampness. Each coat shall be applied in sufficient quantity to obtain complete

coverage, shall be well brushed and evenly worked out over the entire surface and into all corners, angles, and crevices allowed to thoroughly dry.

7. The second coat shall be of suitable shade to match the final color, and shall be approved by the Architect before the final coat is started. Allow at least 48 hours drying time between coats for interior and 7 days for exterior work, and if in the judgment of the Architect more time is required it shall be allowed.
8. Finished surfaces shall be protected from dampness and dust until completely dry. Finished work shall be uniform, of approved color, smooth and free for runs, sags, defective brushing, and clogging.
9. Make edges of paints adjoining other materials of colors sharp and clean, without overlapping.

Finish

The painted surfaces shall present a uniform appearance and semi-glass finish free from streaks, blisters, etc.

3- EMULSION PAINT

- 1- On the plastered/POP surface, painting shall be prepared with sandpapering, putting, and two coats of primer.
- 2- The paint is applied in two coats of acrylic emulsion with roller or spray. The surface should be properly cleaned and treated with water-based primer as per the manufacturer's specifications.
- 3- Rectification of defects in plaster, POP with broken edges should be done by using a proper color putty, paste as per manufactures specifications.
- 4- The surface on which paint is applied shall become hard dry in 12 hours. The necessary single/multistage scaffoldings required for the work shall be provided as detailed out undercoatings.
- 5- The equipment, rollers, or spray used on the work should be immediately washed with water to facilitate future use.
- 6- After the first coat of the paint has hardened, the second coat is applied as instructed by the Architect. Similarly required number of coats shall be given to get an even and uniform shade.

4- ELASTOMERIC WATERPROOFING

Providing and applying two-component acrylic polymer modified cementations flexible membrane system (Rust-Oleum 870 ELASTOMERIC COMMERCIAL GRADE ROOF COATING or equivalent) as approved by Architect, on RC rooftop, terraces, etc. including injection system (pressure grouting) on water leakage area and new & old concreting joint where necessary and filling Perma bond SBR modified mortar or equivalent on the junction between floor and parapet wall area with "V" shape groove cutting as specified by the site engineer all complete: