

THE PAINTING OF PLASTER

Counteracting Free Alkali . . . Sealing Fire-Cracks . . .

Filling Large Cracks with Plaster of Paris . . .

Formulas for Different Finishes.

First of a series of articles, designed to be filed for reference, on the painting of various building materials

FRESH plaster contains a certain amount of free alkali, which has a tendency to keep paint from drying properly and to cause colors to bleach out. For this reason, it is best to allow plaster at least six months to dry out thoroughly or "set" before any paint is applied to it. If it is inconvenient to wait until the plaster has dried out, the action of the free alkali may be counteracted and the pores of the plaster sealed by the use of a size or by some chemical method, such as treating the surface with a 20 per cent solution of zinc sulphate in water.

Fire-cracks

When plaster shrinks in drying, fine, hairlike cracks, known as fire-cracks, frequently appear. Sometimes these cracks are invisible in bare plaster, but become noticeable after the first coat of paint has been applied. This is because the cracks absorb oil from the paint, leaving a "flat" or glossless line on the surface. A proper size over the priming coat will usually seal these cracks. If fire-cracks are evident before any paint is applied, they may be sealed by rubbing the size on the bare plaster with a cloth or sponge.

Preparing the surface

Before paint is applied to plaster, all grit and any loose plaster or paint should be removed by sand-papery or with a wide putty knife, care being taken not to scratch the surface. If the surface is not properly cleaned and perfectly smooth, an uneven finish will result.

All cracks or holes in the plaster should be carefully filled with plaster of paris, before any painting is done. If the cracks are large, they should be opened down to the lath, their edges soaked with water, and the openings filled with plaster of paris. Care should be taken to level off the plaster of paris to avoid any ridges in the wall. When the plaster of paris

has thoroughly dried, it should be sand-papery down to a smooth, even surface.

Number of Coats

In order to insure the proper kind of a finish on unpainted plaster, three coats of paint should be

used—a priming coat, a second or body coat, and a third or finishing coat. If the plaster has been painted before, two coats will be sufficient and the priming coat may be omitted. The old paint, if in good condition, serves as a priming coat.

Below are the formulas generally followed in painting interior plaster walls:

PRIMING COAT

100 lbs. Dutch Boy white-lead
7 gals. pure boiled linseed oil
1 gal. pure turpentine

If boiled linseed oil is unobtainable, 7 gallons raw linseed oil with 3 pints drier may be substituted and will in most cases give satisfactory results. Boiled oil is much superior, however, and will often obviate trouble when conditions are difficult. It seals pores in the plaster and prevents suction. The foregoing formula makes 11 gallons of paint which should cover about 5,500 square feet, one coat.

SECOND COAT

100 lbs. Dutch Boy white-lead
2 to 3 gals. Dutch Boy flattening oil
or
100 lbs. Dutch Boy white-lead
1/2 gal. pure linseed oil
2 gals. pure turpentine
1 pt. pure drier

The formula with the flattening oil makes 5 to 6 gallons of paint which should cover about 3500 to 4200 square feet, one coat. The alternate formula makes 5 1/2 gallons of paint which should cover about 3500 square feet, one coat.

THIRD COAT (Flat Finish)

100 lbs. Dutch Boy white-lead
2 to 3 gals. Dutch Boy flattening oil
or
100 lbs. Dutch Boy white-lead
1 gal. pure turpentine
1 pt. pale varnish (suitable for enamel)
1/2 pt. pure drier

The flattening oil formula makes 5 to 6 gallons of paint which should cover about 3500 to 4200 square feet, one coat. The alternate formula makes 5 gallons of paint which should cover about 3000 square feet, one coat.

THIRD COAT (Egg-Shell Gloss Finish)

100 lbs. Dutch Boy white-lead
1 1/2 to 2 gals. Dutch Boy flattening oil
1/2 gal. pale varnish (suitable for enamel)
or
100 lbs. Dutch Boy white-lead
1 1/2 to 2 gals. pure turpentine
1/2 gal. pale varnish (suitable for enamel)
1/2 pt. pure drier

These formulas make 5 to 5 1/2 gallons of paint which should cover about 3000 to 3500 square feet, one coat.

THIRD COAT (Oil-Gloss Finish)

100 lbs. Dutch Boy white-lead
3 gals. pure raw linseed oil
1/2 gal. Dutch Boy flattening oil
1 pt. pure drier
or
100 lbs. Dutch Boy white-lead
3 to 3 1/2 gals. pure raw linseed oil
1 pt. pure turpentine
1 pt. pure drier

The formula with the flattening oil makes 6 1/4 gallons

of paint, which should cover about 3750 square feet, one coat. The alternate formula makes 6 to 6 1/4 gallons of paint which should cover about 3500 to 3900 square feet, one coat.

THIRD COAT (Enamel Finish)

1 lb. Dutch Boy white-lead
1 gal. pale varnish (suitable for enamel)

The white-lead should be first mixed with turpentine to the proportion of three pounds to one gallon and allowed to stand overnight. The thinner should then be drawn off and the pale varnish added to the white-lead.

The foregoing formula should be used for light colors. It makes 1 gallon of paint which should cover about 500 square feet, one coat.

Distinctive Interior Finishes

There are a number of out-of-the-ordinary finishes which lend a decidedly interesting effect to plaster, such as the Crumpled Roll Finish in two or three tones, the Sponge-Mottle Finish, the Wiped-Stencil Finish, the Tiffany Finish, the Satin Finish, plain stenciling, striping and paneling. If you are interested in any of these finishes, we shall be glad to send you samples of them together with full directions and formulas. Moreover, our Department of Decoration is at the service of any architect who has a special decorative problem to solve.

White-Lead Specifications

Complete specifications for painting the different materials used in building construction are contained in our "Standard Specifications for the Use of White-Lead Paint" and "Standard Specifications for the Use of Red-Lead Paint." Copies may be had upon application to our nearest branch.

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