

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

SECTION G52.161.1
Issue 1, January, 1950
AT&T Co Standard

AERIAL CABLE
PAINTING METAL AND WOOD SURFACES

1. GENERAL

1.01 This section covers the methods to be followed in preparing metal and wood surfaces, and painting them with outside aluminum primer and paint.

1.02 This section replaces Section G52.161, Issue 1, and all references to B Gray Enamel, B Enamel Primer, and Zinc Gray Paint contained in the Outside Plant Practices, including the following:

- (a) Paragraph 2.06 of Section G64.406,
- (b) Part 3 of Section G88.005,
- (c) Part 9 of Section G74.450, and
- (d) Parts 13 to 16, inclusive, of Supplement B, Specification 4950.

1.03 Keep flames, sparks, etc., away from containers of paint, primer, turpentine, and varnish remover.

2. FIELD OF USE OF OUTSIDE ALUMINUM PAINT

2.01 Outside aluminum paint can be used on all outside plant hardware and metal or wood surfaces. It can be used on new or old wood surfaces as well as old asphalt coated and weathered galvanized surfaces.

2.02 Outside aluminum paint is not suitable for painting creosoted poles or new asphalt coated surfaces as its sealing properties are not adequate to seal the creosote or asphalt.

3. PREPARATION OF ALUMINUM PRIMER AND PAINT

3.01 Both materials may be applied either by brushing or by spraying.

3.02 Outside Aluminum Primer covers approximately 400 square feet per gallon. The primer dries for an application of paint in 4 hours when brushed and in 2 hours when

sprayed. The primer is ready-mixed and ready for brushing after a thorough stirring. For spraying, add up to one pint of turpentine per gallon of primer.

3.03 Outside Aluminum Paint covers approximately 500 square feet per gallon with one coat coverage or 300 square feet per gallon where two coats are applied. The paint dries for recoating in 12 hours when brushed and 1/2 hour when sprayed. The final coat of paint dries tack free in 6 hours. The paint is furnished in a double compartment container. The small compartment contains aluminum paste and the large compartment contains clear synthetic varnish. These are to be mixed on the job only in an amount sufficient for the desired coverage. In mixing the paste and varnish, it is important that the mixture be stirred thoroughly to provide a uniform mixture. Mixing will be facilitated by adding a small amount of varnish to the paste (in its compartment) and stirring. When this mixture has the consistency of heavy cream, it should be added to the varnish in the large compartment and stirred. If practicable, the mixture should be allowed to stand for about one hour before use. During this time proceed with preparation of the surface as outlined in Part 5.

If the paint is to be sprayed, it should be thinned after mixing by adding approximately one-half (1/2) pint of turpentine per gallon of paint.

Note: The reasons for supplying the aluminum paint in two-compartment containers rather than as ready-mixed paint are as follows:

- (a) After the aluminum pigment has been added to the varnish, the mixture tends to form a gas. If the mixture is stored for any considerable time the gas may cause the container to rupture.
- (b) The paint mixture, if stored for any considerable time, tends to lose its brilliance of color and its weather resisting qualities.

4. NUMBER OF COATS REQUIRED

4.01 The required number of coats for use under various conditions is as follows:

- (a) On unpainted metal, the combination of one coat of primer and one coat of paint will, under average conditions, afford protection to the metal surface for about three to five years. Two coats of paint, in addition to the primer coat, should afford protection for a period of six to nine years.

- (b) On unpainted wood, two coats of paint should be used. Under average conditions two coats will afford protection for a period of four to six years.
- (c) On old asphalt or weathered galvanized surfaces, two coats of paint should be applied to afford protection for a period of four to six years.
- (d) For paint finishes which are not checked or cracked, one coat of paint should be applied.

5. SURFACE PREPARATION AND PAINTING

5.01 **Where bare metal is to be painted**, first remove all loosely adhering rust, scale, or other surface deposit by scratch brushing or other suitable means. Clean the surface with a cloth moistened with turpentine to remove oil, grease, paraffin, or other similar material. Apply a full coat of primer and allow to dry for four hours if brushed or two hours if sprayed. Apply one or two coats of paint depending upon the protection desired. If two coats of paint are to be applied allow the first coat to dry overnight if brushed or one-half (1/2) hour if sprayed.

5.02 **Where old asphalt or weathered galvanized surfaces are to be painted**, remove loose asphalt, galvanizing, or other surface deposit by scratch brushing or other suitable means. Then clean the surface with a cloth moistened with turpentine. Apply two coats of paint, allowing sufficient drying time between the first and second coats, as outlined in Paragraph 5.01.

5.03 **Where bare wood is to be painted**, sand the surface to remove dirt, grease, or other foreign materials. After sanding, clean the surface with a cloth moistened with turpentine. Primer is not required on wood surfaces. Apply two coats of paint, allowing sufficient drying time between the first and second coats, as outlined in Paragraph 5.01.

5.04 Where previously painted metal or wood surfaces are intact or only slightly peeled or cracked, one coat of paint will usually be sufficient. Any loosely adhering paint should first be removed by scratch brushing or by other suitable means. Clean the surface with a cloth moistened with turpentine.

5.05 On surfaces where the old paint is badly checked or cracked, the surface of the old paint should preferably be removed by means of varnish remover or by burning where this can be done safely. Varnish remover should be used only in well ventilated quarters.