

CHANGE 11

DATE 2/25/81

# ADVISORY CIRCULAR

**CHANGE**

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Washington, D.C.

**Subject:** Change 11 to STANDARDS FOR SPECIFYING CONSTRUCTION OF AIRPORTS—  
Reflects Changes to Federal Specifications

1. **PURPOSE.** Item P-620, Runway and Taxiway Painting, has been revised to reflect changes to Federal Specifications TT-P-1952 and TT-P-85. Minor editorial changes have been made in the text.

The Change number and date of changed material are carried at the top of each page. Changed material is indicated by asterisks in the margin.

## PAGE CONTROL CHART

Remove Pages	Dated	Insert Pages	Dated
415 thru 418	10/12/78	415 thru 418	2/25/81

A handwritten signature in cursive script, reading "Leonard E. Mudd".

LEONARD E. MUDD

Acting Associate Administrator for Airports

## ITEM P-620 RUNWAY AND TAXIWAY PAINTING

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## 1. DESCRIPTION

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1.1 This item shall consist of the painting of numbers, markings, and stripes on the surface of runways and taxiways applied in accordance with these specifications and at the locations shown on the plans, or as directed by the Engineer.

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## 2. MATERIALS

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2.1 PAINT. Paint shall meet the requirements of Federal Specification [\*\*\_\_\_\_\_] [and TT-P-110.]

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The Engineer shall designate either TT-P-1952 or TT-P-85. TT-P-1952 is a water emulsion base; TT-P-85 is an oil base paint. TT-P-110 is a black oil base paint and can be used to outline a border at least 6 inches (15 cm) wide around markings on concrete pavements.

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2.2 [REFLECTIVE MEDIA. Glass spheres shall meet the requirements of Federal Specification TT-B-1325, Type III, gradation A.]

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The addition of glass spheres to a painted area may cause a reduction in the friction characteristics of a wet pavement surface. Use of glass spheres is at the option of the Engineer and/or sponsor.

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## 3. CONSTRUCTION METHODS

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3.1 WEATHER LIMITATIONS. The painting shall be performed only when the surface is dry, when the atmospheric temperature is above 45 degrees F (7 degrees C), and when the weather is not foggy or windy.

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3.2 EQUIPMENT. All equipment for the work shall be approved by the Engineer and shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, and such auxiliary hand-painting equipment as may be necessary to satisfactorily complete the job.

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The mechanical marker shall be an atomizing spray-type marking machine suitable for application of traffic paint. It shall produce an even and uniform film thickness at the required coverage and shall be designed so as to apply markings of uniform cross sections and clear-cut edges without running or spattering.

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## ITEM P-620 RUNWAY AND TAXIWAY PAINTING

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3.3 PREPARATION OF SURFACE. Immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other foreign material which would reduce the bond between the paint and the pavement. The area to be painted shall be cleaned by sweeping and blowing or by other methods as required to remove all dirt, laitance, and loose materials.

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[Paint shall not be applied to portland cement concrete pavement until the concrete in the areas to be painted is clean of curing material. Sandblasting or high pressure water shall be used to remove curing material from concrete surfaces.]

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3.4 LAYOUT OF MARKINGS. On those sections of pavement where no previously applied markings are available to serve as a guide, the proposed markings shall be laid out in advance of the paint application.

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3.5 APPLICATION. Markings shall be applied at the locations and to the dimensions and spacing shown on the plans. Paint shall not be applied until the layout and condition of the surface have been approved by the Engineer.

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The paint shall be mixed in accordance with the manufacturer's instructions and applied to the pavement with a marking machine at the rate of 100 to 110 square feet (9 to 10 square meters) per gallon (liter). The addition of thinner will not be permitted. A period of [\*\*] shall elapse between placement of a bituminous surface course or seal coat and application of the paint.

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The Engineer shall specify the time period. TT-P-1952 may be applied 24 hours after placement of the pavement. In order to allow adequate curing of the pavement surface and to prevent peeling and blistering of the paint, a 30-day period is recommended for TT-P-85. Lesser periods may be specified if necessary to open the pavement to traffic. In this instance the Engineer may wish to specify temporary markings at 50 percent of the specified coverage and to repaint the markings after the asphalt has cured.

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The edges of the markings shall not vary from a straight line more than 1/2 inch (12 mm) in 50 feet (15 m), and the dimensions shall be within a tolerance of plus or minus 5 percent. [Glass spheres shall be distributed to the surface of the marked areas immediately after application of the paint. A dispenser shall be furnished which is properly designed for attachment to the marking machine and suitable for dispensing glass spheres. The spheres shall be applied at the rate of 10 pounds per gallon (1.2 kg per liter) of paint.]

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