

DEPARTMENT OF COMMERCE

BUREAU OF STANDARDS

WASHINGTON

LC 262

PHW:JHMc

V-1

Subject: Traffic Paint.

1. Receipt is acknowledged of your recent inquiry regarding traffic paint.

2. This Bureau has not made a very extensive investigation of traffic paint but at the request of the Traffic Department of the District of Columbia made an investigation which was confined to traffic marking paint for use on bituminous or cement concrete roadways. As a result of this investigation, we prepared for the District of Columbia on January 20, 1928 the following tentative specification for traffic paint:

"Tentative Specification for Traffic White Paint

(Semipaste and Ready-Mixed)

I. GENERAL

This paint is intended for outdoor use on bituminous or cement concrete roadways.

II. CLASSES

Traffic white paint shall be of the following classes as specified: Semipaste or ready-mixed paint.

III. MATERIAL

See Section V.

IV. GENERAL REQUIREMENTS

See Section V.



V. DETAIL REQUIREMENTS

1. Pigment.- The pigment shall be composed of:

	Maximum Per Cent	Minimum Per Cent
Lithopone . . . . .	-	85
Paint pigment other than lithopone . . . . .	15	-

The lithopone used shall contain not less than 28 per cent of zinc sulphide and shall not darken on exposure.

2. Liquid.- The liquid in both the semipaste and the ready-mixed paint shall consist of a pale-colored varnish together with turpentine or volatile mineral spirits or a mixture thereof. The vehicle in the semipaste shall contain not less than 65 per cent of non-volatile matter, which shall dry to a tough and elastic film. The vehicle in the ready-mixed paint shall contain not less than 45 per cent of non-volatile matter which shall dry to a tough and elastic film.

3. Semipaste.- Semipaste shall be made by thoroughly grinding the pigment with the liquid. The semipaste as received and three months thereafter shall be of a smooth paste consistency that can be thinned with the usual paint liquids. The paste shall consist of:

	Maximum Per Cent	Minimum Per Cent
Pigment . . . . .	80	75
Liquid (containing at least 65 per cent of non-volatile matter) . . . . .	25	20
Water (if present) . . . . .	1	-

4. Ready-Mixed Paint.- Ready-mixed paint, as received, shall be suitable for use with the usual paint brush or a paint machine. It shall be well ground, shall not settle badly, cake, or thicken in the container. It shall flow evenly and smoothly, and shall cover solidly in one coat on asphalt. It shall not cause the asphalt to 'bleed' either during application or while it is drying. A single coat shall set within one-half hour (so that there shall be no pick-up under traffic) and dry within one hour (free from tackiness) to a hard, elastic finish. It shall be a brilliantly white finish free from laps or brushmarks. It shall not turn gray in sunlight or show appreciable discoloration with age. The color, hiding power and finish, when specified, shall be equal to those of a sample mutually agreed upon.

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The paint shall consist of:

	Maximum Per Cent	Minimum Per Cent
Pigment . . . . .	-	65
Liquid (containing not less than 45 per cent of non-volatile matter). .	35	-
Water (if present) . . . . .	1.0	-

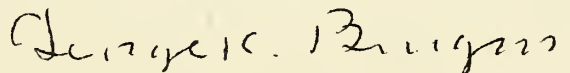
VI. METHODS OF TESTS

Methods of tests shall be those used at the U.S. Bureau of Standards."

3. We are not, however, prepared to recommend this as a Standard specification for traffic paint, although it appears to be giving good service. More recent investigations indicate that the above specification would be improved by substituting zinc oxide for part of the lithopone in this tentative specification, that is, the pigment should contain approximately 20 per cent zinc oxide and the sum of the lithopone and zinc oxide in the pigment should be not less than 85 per cent and the paint pigments other than zinc oxide and lithopone should not exceed 15 per cent.

4. We are enclosing a copy of our Letter Circular 59, which lists the Bureau's publications on paint and varnish and gives information as to how they may be obtained. In connection with the reference to Bureau of Standards methods of tests in the above tentative specification we would call your attention to Circular No. 111, which contains methods for testing an interior lithopone paint. In general, the methods given in that circular would be applicable to the testing of traffic paint with obvious modifications based upon the proposed tentative specification.

Respectfully,



George K. Burgess, Director.

Enclosure:  
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