
Draft Zambian Standard

PAINTS AND VARNISHES- Road Marking Paints – Specification
Part 2: Chlorinated

ZAMBIA BUREAU OF STANDARDS

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ZAMBIA BUREAU OF STANDARDS

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TECHNICAL COMMITTEE RESPONSIBLE

The Paints and Varnishes Technical Committee (CHD/6) upon which the following organisations were represented undertook the preparation of this Zambian standard:

Zambia Compulsory Standards Agency
Zambia Association for Consumers
Zambia Bureau of Standards

FOREWORD

This Zambian standard was prepared by the Technical committee on Adhesives, Paints and Varnishes in accordance with the procedures of the Bureau. This standard is mainly based on SAZS 448; Part 2, 1995 - Non-reflectorized Water-Borne Road and Runway Marking Paint.

Consideration was also accorded to the prevailing practice in the country.

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ZAMBIA BUREAU OF STANDARDS**DRAFT ZAMBIAN STANDARD****ZS 354 Part 2 : 2026****PAINTS AND VARNISHES- Road Marking Paints – Specification
Part 2: Chlorinated****1.0 SCOPE**

This specification covers quick-drying chlorinated road marking paint for use on butuminous and concrete road surfaces. It makes provision for yellow, white, black and any other colour agreed between the supplier and the purchaser, but does not cover specification for reflectorized paint.

2.0 REFERENCES

ZS 201 - Paints and Varnishes - Emulsion Paints for Interior and Exterior use - Specification.

ZS 284 - Paints and Varnishes - Methods of Test.

ZS 354 - Paints and Varnishes - Road Marking Paints, Part 1 - Acrylic.

3.0 DEFINITIONS

For the purpose of this specification the definitions given in ZS 354 Part 1 shall apply.

4.0 REQUIREMENTS**4.1 Composition****4.1.1 Volatile matter content**

The volatile matter content of the paint, determined in accordance with ZS 284 Part 1 shall not exceed 35% (m/m).

4.1.2 Pigment volume concentration

The pigment volume concentration of the paint, determined in accordance with ZS 284 Part 29 shall be 45-60 %.

4.2 Condition in the container

The paint on receipt, in a freshly opened full container shall, when examined in accordance with ZS 201, show no instability, livering, caking or dry sediment and shall be free from lumps, loose skins and any foreign material. It shall mix readily with a paddle to a smooth homogeneous state.

4.3 Resistance to skinning

When tested in accordance with ZS 284 part 28 the well mixed paint shall not skin.

4.4 Consistency

The consistency of the paint, determined by means of a Krebs-Stormer Viscometer in accordance with ZS 284 Part 4 shall be 70-95 Ku.

4.5 Fineness of grind

When tested in accordance with ZS 284 Part 18 the paint shall have a fineness of grind reading not exceeding 30µm

4.6 Application properties

4.6.1 Brushing properties

When tested in accordance with ZS 284 Part 5 shall brush and flow satisfactorily and shall work and join well. The resultant dry paint film shall have a uniform matt or eggshell appearance and shall be free from wrinkles and other surface imperfections.

4.6.2 Rolling properties

The paint when tested in accordance with ZS 284 Part 5 shall work, flow and join well. The resultant dry film shall have a uniform matt or eggshell appearance.

4.6.3 Spraying properties

When thinned in accordance with the manufacturer's instructions for use, the paint shall be suitable for application by pressure feed spray, airless spray and by road striping machinery. The resultant dry film shall have a uniform matt or eggshell appearance.

4.7 Drying properties

When tested in accordance with ZS 284 Part 6, the paint shall be dry to 'no pick up' within 20 minutes and hard dry within 90 minutes after application.

4.8 Hiding power

When tested in accordance with ZS 284 Part 10 at the appropriate wet film thickness specified in table 1, the contrast ratio of white paint shall be at least 0.95 and at least 0.90 for other colours.

Table 1 - Hiding Power

1	2
Colour	Wet film thickness, µm, max
White	150
Yellow	150
Black	75

4.9 Colour

The colour of dry film of the yellow paint shall be a practical match to BS 381 C, colour No. 356 or as requested by the purchaser.

4.10 Reflectance of white paint

When tested in accordance with ZS 282 Part 9, white paint shall have a daylight 45° 0° luminous directional reflectance of at least 80%.

4.11 Specular gloss at 60 °

When tested in accordance with ZS 284 Part 7 the 60° Specular Gloss of the dry film shall not exceed 20 %.

4.12 Resistance to bleeding.

When determined in accordance with ZS 284 Part 30, the difference between the daylight 45°, 0° luminous directional reflectance of the paint applied over the sealed and unsealed portions of the test substrate shall not exceed 3 units for white paint and 1 unit for yellow paint.

4.13 Resistance to artificial weathering

The dry paint film, prepared and weathered in accordance with ZS 284 part 25, shall show no chalking, checking, cracking or flaking and shall not have a colour change rating lower than the appropriate value given in table 2.

Table 2 - Artificial Weathering

1	2
Colour	Permissible colour change, minimum
White and Yellow	4
Yellow	3

4.14 Abrasion resistance

The dry paint film, prepared and tested in accordance with ZS 284 Part 31 shall withstand abrasion with at least 140 g of abrasive before the underlying surface is exposed over an area of 2 mm in diameter.

4.15 Storage stability

The paint when stored for 30 days at a temperature of 25±2 ° C in a fully sealed container as delivered by the manufacturer shall meet all the requirements of this standard for a period of 9 months.

5.0 SAMPLING

As in ZS 201 : 1994 (Clause 7).

5.1 Test sample and panels

As in ZS 201 : 1994 (Clause 8).

6.0 PACKING AND MARKING

6.1 Containers

The paint shall be packed in clean dry containers. The containers shall be strong enough to withstand normal usage and shall be adequately sealed to prevent leakage and contamination of the contents during normal transportation and storage.

6.2 Marking

6.2.1 The following information shall be clearly and marked on each container or on a label securely fixed to it.

- (a) the manufacturers name and the brand name of the product,
- (b) the words “Chlorinated Road-Marking Paint”,
- (b) the colour ,
- (d) the batch identification
- (e) the directions for use, including, thinning instructions for spray applications.

7.2.2 The containers may also be marked with the ZABS Certification Mark.

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