

Road marking materials — Laboratory methods for identification

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 11 and a back cover.

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Road marking materials — Laboratory methods for identification

Produits de marquage routiers — Méthodes de
laboratoire pour identification

Straßenmarkierungsmaterialien — Laborverfahren
für die Identifikation

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Comité Européen de Normalisation
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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 226, Road equipment, the Secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2000, and conflicting national standards shall be withdrawn at the latest by July 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

The annexes A, B, C, D, E, F, G, H, and J of this European Standard are normative.

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1 Scope

This European Standard describes laboratory methods for the identification of road marking materials used in horizontal signalization.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

prENV 13459-1:1999, *Road marking materials — Quality control — Part 1: Sampling from storage and testing*.

ISO 2811-1:1997, *Paints and varnishes — Determination of density — Part 1: Pycnometer method*.

ISO 5725-2:1994, *Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*.

3 Definitions

For the purposes of this standard the following definitions apply.

3.1

paint

a liquid product containing solids suspended in an organic solvent or in water. It can be supplied in single or multi-component systems. When applied by brush, roller, spray or any other appropriate method it produces a cohesive film by the process of solvent evaporation and/or by a chemical process

3.2

thermoplastics

a solvent-free marking substance supplied in block, granular or powder forms. It is heated to a molten state and then applied with an appropriate hand or mechanical applicator. It forms a cohesive film by cooling

3.3

cold plastics

a marking substance which is supplied in single or multi-component forms. Depending on the type of system the components are mixed together in various ratios and applied with an appropriate applicator. It forms a cohesive film only by a chemical process

4 Sampling

Samples representative of each component of the material shall be taken from storage in accordance with prENV 13459-1:1999. Smaller representative samples, of sufficient quantity to carry out all the tests required, shall be taken from the larger samples. For paints and cold plastics approximately 1 l of the basic component shall be taken.

In the case of thermoplastic in powder form sufficient quantity shall be taken in accordance with prENV 13459-1:1999 so that it can be melted in a metal container and mixed to a homogeneous mass. After cooling and casting into solid sheets or blocks, representative samples of approximately 1 kg of homogeneous solid material shall be taken for testing.

5 Test methods

5.1 General

The standard test methods are listed in 5.2 to 5.4.

Alternative quantitative analytical test methods may be used providing that:

- the resulting values are comparable to those obtained using the standard methods; and
- the repeatability of the alternative methods, determined in accordance with ISO 5725-2:1994, can be shown to be not less than that of the methods given in this standard.

5.2 Paint

5.2.1 Density

The density of the paint shall be determined using the method laid down in ISO 2811-1:1997.

5.2.2 Solids content

The solids content of the paint, expressed as a percentage, shall be determined using the method described in annex A.

5.2.3 Binder content

The binder content of the paint, expressed as a percentage, shall be determined using the method described in annex B.

5.2.4 Titanium dioxide content

The titanium dioxide content of the paint, expressed as a percentage, shall be determined by the method described in annex C.

5.2.5 Binder type

The type of binder shall be identified using the method of infrared analysis described in annex D.

5.2.6 Pigment and inorganic materials

The type of both pigment and inorganic materials shall be identified using the method described in annex E.