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BSI Standards Publication

Road marking materials — Paint, thermoplastic and cold plastic materials — Physical properties

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National foreword

This British Standard is the UK implementation of EN 1871:2020. It supersedes BS EN 1871:2000, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/509/2, Horizontal road markings and road studs.

A list of organizations represented on this committee can be obtained on request to its committee manager.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

Road marking materials - Paint, thermoplastic and cold plastic materials - Physical properties

Produits de marquage routier - Peintures, enduits à froid et à chaud - Propriétés physiques

Straßenmarkierungsmaterialien - Markierungsfarben, Kaltplastikmassen und Heißplastikmassen - Physikalische Eigenschaften

This European Standard was approved by CEN on 19 July 2020.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 1871:2020) 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of an identical text or by endorsement, at the latest by April 2021, and conflicting national standards shall be withdrawn at the latest by April 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1871:2000.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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1 Scope

This document covers testing of physical properties of road marking materials by laboratory methods.

The products covered and specified by this document are white and yellow paint, thermoplastic and cold plastic materials, with or without premix glass beads, to be used for permanent and/or temporary road markings on highways and other areas used by vehicular traffic. Other products and colours intended for road markings are not covered in this document.

Not all physical properties listed in this document have to be specified.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1436:2018, *Road marking materials - Road marking performance for road users and test methods*

EN 12802, *Road marking materials - Laboratory methods for identification*

EN 13459, *Road marking materials - Sampling from storage and testing*

EN ISO 787-11, *General methods of test for pigments and extenders - Part 11: Determination of tamped volume and apparent density after tamping (ISO 787-11)*

EN ISO 1514, *Paints and varnishes - Standard panels for testing (ISO 1514)*

EN ISO 2812-1, *Paints and varnishes - Determination of resistance to liquids - Part 1: Immersion in liquids other than water (ISO 2812-1)*

EN ISO 4892-3, *Plastics - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps (ISO 4892-3)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

paint

liquid product which contains binders, pigments, fillers, solvents and additives, which can be supplied in single or multi-component systems and which, when applied, produces a cohesive film by the process of solvent/water evaporation or the process of solvent/water evaporation and a chemical reaction or coalescence process (in the case of water based product)

3.2

thermoplastic

solvent-free marking product which is supplied in block, granular, powder forms or preformed (e.g. as tape), which is heated to a molten state prior to application to road surfaces, and which forms a cohesive film by cooling