

DIN EN 1871



ICS 93.080.20

Supersedes
DIN EN 1871:2000-03

**Road marking materials –
Paint, thermoplastic and cold plastic materials –
Physical properties;
English version EN 1871:2020,
English translation of DIN EN 1871:2020-12**

Straßenmarkierungsmaterialien –
Markierungsfarben, Kaltplastikmassen und Heißplastikmassen –
Physikalische Eigenschaften;
Englische Fassung EN 1871:2020,
Englische Übersetzung von DIN EN 1871:2020-12

Produits de marquage routier –
Peintures, enduits à froid et à chaud –
Propriétés physiques;
Version anglaise EN 1871:2020,
Traduction anglaise de DIN EN 1871:2020-12

Document comprises 45 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.

A comma is used as the decimal marker.

National foreword

This document (EN 1871:2020) has been prepared by Technical Committee CEN/TC 226 “Road equipment” (Secretariat: AFNOR, France).

The responsible German body involved in its preparation was *DIN-Normenausschuss Bauwesen* (DIN Standards Committee Building and Civil Engineering), Working Committee NA 005-10-22 AA “Horizontal road signs (national mirror committee for CEN/TC 226/WG 2) Joint working group with FGSV”.

The DIN documents corresponding to the international documents referred to in this document are as follows:

ISO 11664-2:2007	DIN EN ISO 11664-2:2011-07
ISO 16474 (all parts)	DIN EN ISO 16474 (all parts)

For current information on this document, please go to DIN’s website (www.din.de) and search for the document number in question.

Amendments

This standard differs from DIN EN 1871:2000-03 as follows:

- a) the Tröger test has been removed;
- b) the indentation test has been adapted;
- c) the entire standard has been editorially revised.

Previous editions

DIN EN 1871: 2000-03

National Annex NA (informative)

Bibliography

DIN EN ISO 11664-2:2011-07, *Colorimetry — Part 2: CIE standard illuminants (ISO 11664-2:2007)*

DIN EN ISO 16474 (all parts) *Paints and varnishes — Methods of exposure to laboratory light sources*

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.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Requirements	7
4.1 General.....	7
4.2 Paint.....	7
4.3 Thermoplastic	9
4.4 Cold plastic	11
5 Test methods	12
5.1 General.....	12
5.2 Paint.....	12
5.3 Thermoplastic	13
5.4 Cold plastic	13
Annex A (normative) Paint and cold plastic – Test method for determining the luminance factor and chromaticity coordinates	15
A.1 Principle and apparatus	15
A.2 Materials.....	15
A.3 Procedure.....	15
Annex B (normative) Paint – Test method for determining the hiding power	16
B.1 Principle	16
B.2 Apparatus.....	16
B.3 Procedure.....	16
B.4 Expression of results.....	17
Annex C (normative) Paint and cold plastic – Test method for determining the storage stability	19
C.1 Principle	19
C.2 Apparatus.....	19
C.3 Procedure.....	21
C.4 Determination of the degree of suspension and ease of remixing.....	21
C.5 Rating.....	21
Annex D (normative) Paint – Test method for determining the bleed resistance	23
D.1 Principle	23
D.2 Apparatus and materials	23
D.3 Preparation of bitumen coated carrier panel.....	23
D.4 Procedure.....	23

Annex E (normative)	Paint, cold plastic and thermoplastic – Test method for determining the alkali resistance of the materials	25
E.1	Principle.....	25
E.2	Apparatus and reagents	25
E.3	Number of tests	26
E.4	Preparation of test panels	26
E.5	Testing.....	27
E.6	Evaluation of the surface conditions	27
E.7	Precision and repetition	27
Annex F (normative)	Thermoplastic – Test method for determining the chromaticity coordinates and luminance factor.....	28
F.1	Principle.....	28
F.2	Apparatus	28
F.3	Procedure	28
Annex G (normative)	Thermoplastic – Test method for determining the softening point	29
G.1	Principle.....	29
G.2	Apparatus	29
G.3	Samples	29
G.4	Preparation of the ring	29
G.5	Procedure	31
G.6	Expression of the result.....	31
Annex H (normative)	Thermoplastic – Test method for determining the heat stability	32
H.1	Principle.....	32
H.2	Apparatus	32
H.3	Preparation of sample	32
Annex I (normative)	Thermoplastic – Test method for determining the cold impact resistance.....	37
I.1	Principle.....	37
I.2	Apparatus and reagents	37
I.3	Procedure	38
Annex J (normative)	Thermoplastic – Test method for determining the indentation value	39
J.1	Principle.....	39
J.2	Summary.....	39
J.3	Apparatus	39
J.4	Preparation of the sample	41
J.5	Testing	42
J.6	Calculation.....	42