



**SLOVENSKI STANDARD**  
**SIST EN 12899-1:2008/kFprA1:2012**  
**01-december-2012**

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**Stalna vertikalna cestna signalizacija - 1. del: Stalni prometni znaki**

Fixed, vertical road traffic signs - Part 1: Fixed signs

Ortsfeste, vertikale Straßenverkehrszeichen - Teil 1: Ortsfeste Verkehrszeichen

Signaux fixes de signalisation routière verticale - Partie 1: Panneaux fixes

**Ta slovenski standard je istoveten z: EN 12899-1:2007/FprA1**

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**ICS:**

93.080.30	Cestna oprema in pomožne naprave	Road equipment and installations
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**SIST EN 12899-1:2008/kFprA1:2012**      **en,fr,de**



EUROPEAN STANDARD  
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**FINAL DRAFT**  
**EN 12899-1:2007**

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English Version

## Fixed, vertical road traffic signs - Part 1: Fixed signs

Signaux fixes de signalisation routière verticale - Partie 1:  
Panneaux fixes

Ortsfeste, vertikale Straßenverkehrszeichen - Teil 1:  
Ortsfeste Verkehrszeichen

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 226.

This draft amendment A1, if approved, will modify the European Standard EN 12899-1:2007. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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## Foreword

This document (EN 12899-1:2007/FprA1:2012) has been prepared by Technical Committee CEN/TC 226 "Road equipment", the secretariat of which is held by AFNOR.

This document is currently submitted to the Unique Acceptance Procedure.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

The main reason for this amendment is to incorporate in the series of existing standards EN 12899:2007 (Parts 1 to 5), a new standard EN 12899-6, which deals with the visual performance of retroreflective sign face materials.

**EN 12899-1:2007/FprA1:2012 (E)****1 Modification to the Contents**

*Update the table of contents.*

**2 Modifications to the Foreword**

*Insert the following text as 3<sup>d</sup> paragraph:*

"The main reason for this amendment is to incorporate in the series of existing standards EN 12899:2007 (Parts 1 to 5), a new standard EN 12899-6, which deals with the visual performance of retroreflective sign face materials."

*Replace the introductory sentence to the list of parts, as given in paragraphs 6 and 7, with the following text:*

"This document is a European Standard in the series of standards EN 12899 on "Fixed, vertical road traffic signs", with the followings parts:"

*In paragraph 7, add also "Part 6: Performance of retroreflective sign face materials".*

**3 Modifications to the Introduction**

*Replace the 1<sup>st</sup> paragraph with the following:*

"This European Standard is designed for use by manufacturers, who are placing their fixed vertical, road traffic signs to the market, as well as for use by road authorities and private developers who wish to use these signs."

*In the 2<sup>nd</sup> paragraph delete the 1<sup>st</sup> dash.*

*In the 3<sup>rd</sup> paragraph, 1<sup>st</sup> sentence, delete "in respect of materials based on glass bead technology" to read: "The retroreflective requirements and tests A1 deleted text A1 are specified in this standard."*

*In the 3<sup>d</sup> paragraph, delete the last sentence.*

*Delete the 4<sup>th</sup> paragraph.*

**4 Modifications to Clause 1**

*Replace the 1<sup>st</sup> paragraph with the following:*

"This European Standard specifies the requirements for assembled vertical, road traffic signs as well as for their components (i.e. retroreflective sign face materials, supports and signs, which may or may not have additional components) together with provisions on the corresponding test methods, evaluation of conformity and marking."

*Add new note after this paragraph:*

"NOTE Provisions for the evaluation of conformity with regards to initial type testing (ITT) are further specified in EN 12899-5; provisions with regards to factory production control (FPC) are further specified in EN 12899-4."

In the 3<sup>rd</sup> paragraph, line c, add "traffic" between "message" and "signs" to read "variable message <sup>A1</sup> traffic <sup>A1</sup> signs;".

## 5 Modifications to Clause 2

Add the following references:

"EN 12899-6:2013, *Fixed vertical road traffic signs — Part 6: Performance of retroreflective sign face materials*"

"EN ISO 6272-1, *Paints and varnishes — Rapid-deformation (impact resistance) tests — Part 1: Falling-weight test, large area intender (ISO 6272-1)*"

Delete the following normative references:

"EN ISO 4892-2, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps (ISO 4892-2:2006)*

EN ISO 6272, *Paints and varnishes — Rapid-deformation (impact resistance) tests*

EN ISO 9001, - *Quality management systems - Requirements (ISO 9001:2000)*"

"CIE 54.2, *Retroreflection — Definition and measurement*"

## 6 Modification to Clause 3

In 3.1 replace the term "sign assembly" with "assembled vertical road traffic sign".

## 7 Modifications to Clause 4

Replace the heading of Clause 4 with "Requirements for retroreflective sign face material".

In 4.1, in the heading, replace "Glass bead material" with "Visual performance".

In 4.1.1, in the heading, replace "Visual performance" with "Test conditions".

Delete the title of 4.1.1.1 completely, as it is now already in 4.1.1.

Renumber sub-clause 4.1.1.2 into 4.1.2.

Renumber sub-clause 4.1.1.3 into 4.1.3.

Delete the whole content of new 4.1.3 and replace it with the following:

"Daylight chromaticity and luminance factor shall be in accordance with EN 12899-6:2013, Clause 5."

Renumber sub-clause 4.1.1.4 into 4.1.4 and replace its title with "Retroreflection".

Delete the whole content of this sub-clause and replace it with the following:

"Retroreflection shall be in accordance with EN 12899-6:2013, Clause 4."

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*Renumber sub-clause 4.1.1.5 into 4.1.5.*

*Renumber sub-clause 4.1.1.5.1 into 4.1.5.1.*

*Delete the whole content of this sub-clause and replace it with the following:*

*“Resistance to weathering shall be in accordance with EN 12899-6:2013, 6.1.”*

*Renumber this sub-clause 4.1.1.5.2 into 4.1.5.2.*

*Delete the whole content of this sub-clause and replace it with the following:*

*“Accelerated natural weathering shall be in accordance with EN 12899-6:2013, 6.2.”*

*Renumber sub-clause 4.1.1.5.3 into 4.1.5.3.*

*Delete the whole content of this sub-clause and replace it with the following:*

*“Accelerated artificial weathering shall be in accordance with EN 12899-6:2013, 6.3.”*

*Renumber sub-clause 4.1.2 into 4.2 and rename it “Adhesion”.*

*Delete the whole content of new 4.2 and replace it with the following:*

*“Adhesion shall be in accordance with EN 12899-6:2013, Clause 7.”*

*Delete the whole sub-clause 4.2.*

**8 Modifications to Clause 5**

*Renumber Tables 6 to 12 into Tables 1 to 7 and update the text accordingly.*

*Replace the heading of Clause 5 with "Requirements for structural performance".*

*In 5.3.1.3, in Table 3, replace the expression “No performance determined” with “no requirement”.*

*In 5.3.2, in the 2<sup>nd</sup> sentence replace "is not simultaneous" with "shall not be simultaneous".*

*In 5.3.2, Table 9 (new Table 4), replace the expression “No performance determined” with “no requirement”.*

*In 5.3.3, in the 2<sup>nd</sup> sentence, replace "is not applied simultaneously" with "shall not be applied simultaneously".*

*In 5.3.3, Table 10 (new Table 5), replace the expression “No performance determined” with “no requirement”.*

*In 5.4.1, Tables 11 and 12 (new Tables 6 and 7), replace the expression “No performance determined” with “no requirement”.*

*In 5.4.4.4, paragraphs 2, 3, 6 and 7, at the beginning of the sentences, replace “is” with “shall be”.*

**9 Modification to Clause 6**

*Replace the heading of Clause 6 with "Requirements for supports".*



## 10 Modifications to Clause 7

*Renumber Tables 13 to 23 to become new Tables 8 to 18 respectively and update the text accordingly.*

*Replace the heading of Clause 7 with "Requirements for sign plates, sign faces, transilluminated signs, externally illuminated signs and supports".*

*In 7.1.2, at the beginning of the text replace the expression "The Manufacturer" with "It" and replace "ensure" with "be ensured".*

*In 7.1.7, paragraph 4, replace "The manufacturer shall apply surface coating" with "Surface coating shall be applied".*

*Replace the heading of 7.1.13 with "Electrical parts and components".*

*In 7.2.2.1.1, replace "4.1.1.1" with "4.1.1".*

*In 7.2.2.1.2, replace "4.1.1.2" with "4.1.2".*

*In 7.2.2.2, delete the whole paragraph 1 and replace it with:*

"When tested in accordance with EN ISO 6272-1, using a mass of 450 g with a contact radius of 50 mm dropped from a height of 220 mm, there shall be no cracking or, for sign face sheeting material, delamination from any substrate, outside a circle of 6 mm radius with the point of impact as the centre.

The test sign shall be supported as it would be when installed, or the test sample shall be supported over an open area of (100 × 100) mm."

*In 7.3.1.1, replace "4.1.1.1" with "4.1.1".*

*In 7.3.1.1, add the following new paragraph after the existing one:*

"In case of using retroreflective sign face materials the retroreflectivity shall be in accordance with 4.1.4."

*In 7.3.1.8, replace paragraph 3 with the following:*

"The testing procedure for retroreflective sign face materials shall conform to 4.1.5.2."

*In 7.4.2.1, replace "signs" with "sign face materials".*

*In 7.4.2.2, at the end of this paragraph, after "7.4.1.3" add ", respectively".*

*Delete sub-clause 7.4.2.3.*

*Insert new 7.5 with the following text:*

### **"7.5 Dangerous substances**

National regulations on dangerous substances may require verification and declaration on release, and sometimes content, when construction products covered by this standard are placed on those markets.

In the absence of European harmonized test methods, verification and declaration on release/content should be done taking into account national provisions in the place of use.

NOTE An informative database covering European and national provisions on dangerous substances is available at the Construction web site on EUROPA accessed through:

<http://ec.europa.eu/enterprise/construction/cpd-ds/>

## EN 12899-1:2007/FprA1:2012 (E)

### 11 Modifications to Clause 8

*Replace the title with:* "Requirements for assembled vertical road traffic sign".

*Replace the paragraph with:*

"The characteristics of the assembled vertical road traffic signs shall be in accordance with the appropriate clauses of this European Standard applicable for the components."

### 12 Modifications to 9.2

*In paragraph 1, replace* "All products and components mentioned in the scope" *with* "Each assembled fixed vertical, road traffic sign, or its components (i.e. retroreflective sign face materials, supports and sign plates with sign face materials)".

*In paragraph 2, indent 3, delete* "retroreflective performance class as specified in EN 12899-1 or the relevant ETA" *and replace it with* "application and retroreflection performance classes, as specified in Clause 4."

### 13 Modifications to Clause 10

*Add a new sub-clause with the title:* "**10.1 General**".

*In paragraph 1, after the expression* "The conformity of", *replace* "a vertical road traffic sign" *with the following expression* "the product (i.e. an assembled fixed vertical, road traffic sign, or its components (i.e. retroreflective sign face material, supports and/or sign plates with sign face materials))".

*In paragraph 1, indent 1, delete the expression* "in accordance with EN 12899-5; and".

*In paragraph 1, indent 2, delete the expression* "in accordance with EN 12899-4" *and replace it with* "including product assessment."

*Delete completely paragraph 2.*

*In addition, add a new sub-clause with the title* "**10.2 Initial type testing**", *followed by a new paragraph:*

"The product shall be subjected to initial type testing according to EN 12899-5 to show conformity with this European Standard."

*In addition, add a new sub-clause with the title* "**10.3 Factory production control**", *followed by a new paragraph:*

"The product shall be subjected to factory production control according to EN 12899-4 to show conformity with this European Standard."

### 14 Modification to Clause 11

*Delete the whole clause.*