Fixed, vertical road traffic signs - Part 4: factory production control

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 12899-4:2007. 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 Management Centre has the same status as the official versions.

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Foreword

This document (EN 12899-4:2007/prA1:2010) 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 amendment of the following parts of EN 12899-4:2007 have become necessary to incorporate Part 6 of this Standard which deals with the visual performance of retroreflective sheeting materials.
1 Modification to Foreword

In paragraph 2,

line 2 – delete “May 2008” and replace with “month year”
line 3 – delete “August 2012” and replace with “month year”

Insert the following text between paragraphs 2 and 3:

“This document includes Amendment 1 which became necessary to incorporate Part 6 of this Standard which deals with the visual performance of retroreflective sheeting materials.

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A] [B].”

In paragraph 3, delete existing text and replace with “This document supersedes EN 12899-4:2007.”

In paragraph 6, add “Part 6: Performance of retroreflective sign face materials” to the end of the list

2 Modification to Scope

Lines 1 and 2 – delete “2 and 3” and replace with “2, 3 and 6”

3 Modification to Clause 2, Normative references

Add references to:

“EN 12899-5, Fixed vertical road traffic signs — Part 5: Initial type testing
EN 12899-6, Fixed vertical road traffic signs — Part 6: Performance of retroreflective sign face materials”

4 Modification to Table 1a

Row 7 – Chromaticity co-ordinates and luminance factors – retroreflective sheeting materials

column 1 – delete “Chromaticity co-ordinates and luminance factors – retroreflective sheeting materials” and replace with the following text:

“Chromaticity coordinates and luminance factor – retroreflective sign face materials”

column 3 – delete “EN 12899-1” and replace with “EN 12899-6”

Row 8 – Coefficient of retroreflection – retroreflective sheeting materials

column 1 – delete “Coefficient of retroreflection – retroreflective sheeting materials” and replace with the following text:

“R_A index – retroreflective sign face materials”

Column 3 – delete “EN 12899-1” and replace with “EN 12899-6”

Row 9 – Chromaticity co-ordinates and luminance factors – signs

column 1 – delete “Chromaticity co-ordinates and luminance factors – signs” and replace with the following text:

“Chromaticity coordinates and luminance factor – sign faces comprising retroreflective, screen printed materials”

column 3 – delete “All samples in each batch shall pass the test in the manufacturer’s FPC procedures” and replace with the following text:

“All samples shall meet the requirements of EN 12899-6, per batch of signs”
Row 10 – Coefficient of retroreflection – signs

column 1 – delete “Coefficient of retroreflection – signs” and replace with the following text:

“R\textsubscript{A} index – sign faces comprising retroreflective, screen printed materials”

column 3 – delete “All samples in each batch shall pass the test in the manufacturer’s FPC procedures. The following geometry shall be used: \( \alpha = 20' \) and \( \beta_1 = +5° \) (\( \beta_2 = 0° \) and \( \epsilon = 0° \))” and replace with the following text:

“All samples shall meet the requirements of EN 12899-6, per batch of signs”

Row 12 – Resistance to weathering – retroreflective sheeting materials

delete row

Row 13 – Resistance to weathering – screen–printed, retroreflective sheeting materials

delete row

Row 14 – delete “EN 12899-5:2007” and replace with “EN 12899-5”

5 Modification to Table 1b

Row 5 – Chromaticity coordinates – retroreflective sheeting materials

column 1 – delete “Chromaticity coordinates – retroreflective sheeting materials” and replace with the following text:

“Chromaticity coordinates and luminance factor – retroreflective sheeting materials”

column 3 – delete “All values shall lie within the limits specified in EN 12899-1, per batch of sheeting material” and replace with the following text:

“All samples in each batch shall meet the requirements of EN 12899-6”

New row after row 5

column 1 – insert “R\textsubscript{A} index – retroreflective sign face materials”
column 2 – insert “Five per colour and type”
column 3 – insert “All samples in each batch shall meet the requirements of EN 12899-6”

Existing row 6 – Chromaticity coordinates – screen–printed materials

column 1 – delete “Chromaticity coordinates – screen–printed materials” and replace with the following text:

“Chromaticity coordinates and luminance factor – sign faces comprising retroreflective, screen printed materials”

column 4 – delete “All values shall lie within the limits specified in EN 12899-1, per batch of signs” and replace with the following text:

“All samples shall meet the requirements of EN 12899-6, per batch of signs”

New row after existing row 6

column 1 – insert “R\textsubscript{A} index – sign faces comprising retroreflective, screen printed materials”
column 2 – insert “In accordance with Table 2”
column 3 – insert “All samples shall meet the requirements of EN 12899-6, per batch of signs”

Existing row 9 – Resistance to natural weathering – retroreflective sheeting materials

delete row
### 6 Modification to Table 1c

**Row 5 – Chromaticity coordinates – retroreflective sheeting materials**

- **Column 1 – delete** “Chromaticity coordinates – retroreflective sheeting materials” and replace with the following text:
  
  “Chromaticity coordinates and luminance factor”

- **Column 3 – delete** “All values shall lie within the limits specified in EN 12899-1, per batch of sheeting material” and replace with the following text:
  
  “All samples in each batch shall meet the requirements of EN 12899-3, table 1”

**Row 6 – Coefficient of retroreflection – retroreflective sheeting materials**

- delete row

**Row 8 – Resistance to natural weathering – retroreflective sheeting materials**

- delete row

**Row 9 – delete “EN 12899-5:2007” and replace with “EN 12899-5”**

### 7 Modification to Table 1d

**Row 4 – Chromaticity co-ordinates (type R1 only)**

- **Column 1 – delete** “Chromaticity co-ordinates (type R1 only)” and replace with the following text:
  
  “Daylight chromaticity coordinates and luminance factor”

- **Column 3 – delete** “All values shall lie within the limits specified in EN 12899-1, per batch” and replace with the following text:
  
  “All samples in each batch shall meet the requirements of EN 12899-6”

**New row after row 4**

- **Column 1 – insert** “Night-time chromaticity coordinates”

- **Column 2 – insert** “In accordance with Table 2”

- **Column 3 – insert** “All samples in each batch shall meet the requirements of EN 12899-3, table 2”

**Existing row 5 – Coefficient of retroreflection**

- **Column 1 – delete** “Coefficient of retroreflection” and replace with the following text:
  
  “Retroreflection”

- **Column 3 – delete** “All values shall lie within the limits specified in EN 12899-1, per batch” and replace with the following text:
  
  “All samples in each batch shall meet the requirements of EN 12899-3, 6.3.2.3”

**Existing row 7 – Resistance to natural weathering**

- delete row
Existing row 8 – delete “EN 12899-5:2007” and replace with “EN 12899-5”