

**norm****NEN-EN 13422**

Verticale verkeerstekens - Draagbare  
vervormbare waarschuwingsapparatuur en  
verkeersstrepen - Draagbare  
verkeerstekens - Kegels en cilinders

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Vertical road signs - Portable deformable warning devices and delineators  
- Portable road traffic signs - Cones and cylinders

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN 13422**

October 2018

ICS 93.080.30

Will supersede EN 13422:2004+A1:2009

English Version

**Vertical road signs - Portable deformable warning devices  
and delineators - Portable road traffic signs - Cones and  
cylinders**

Signalisation routière verticale - Dispositifs d'alerte et  
balisages de voie souples et mobiles - Signaux  
temporaires mobiles - Cônes et cylindres

Straßenverkehrszeichen (vertikal) - Transportable  
Straßenverkehrszeichen - Leitkegel und Leitzylinder

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 226.

If this draft becomes a European Standard, 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.

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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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## European foreword

This document (prEN 13422:2018) 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 CEN Enquiry.

This document will supersede EN 13422:2004+A1:2009.

In comparison with the previous edition, the following technical modifications have been made:

- a) Updating of the normative references;
- b) Clarification of the definitions in Clause 3;
- c) Amendment of performance requirements for Class R<sub>A</sub> 3, R<sub>L</sub> 3 and L<sub>rel</sub> 1;
- d) Clarification of the test method for the relative distribution of retroreflective performance.

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## Introduction

This document gives common provisions for the construction and visual performance of traffic cones and cylinders. The visual performance at daytime is specified by the colour and luminance factor. The visual performance at nighttime is specified by the coefficient of retroreflection  $R_A$ , the coefficient of retroreflected luminance  $R_L$  and the relative distribution of retroreflective performance  $L_{rel}$ .

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## 1 Scope

This document specifies requirements for new traffic cones and new traffic cylinders with retroreflective properties.

This document specifies minimum essential visual and physical performance characteristics; test methods for determination of product performance and the means by which this performance may be communicated to the user and the public including safety enforcement agencies.

The document provides a series of categories or classes by which a traffic cone or traffic cylinder may be specified for use in different applications in accordance with best practice.

In the case of physical properties, performance levels and indicative tests are provided for cold weather, stability, and impact resistance when dropped. Requirements for visual recognition properties, colour, retro-reflectivity and luminance are provided.

Provision for identification and marking to declared levels of performance is provided.

There are other product shapes which perform similar functions. This document does not cover devices made in other shapes, or which do not meet the design requirements of this document.

## 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 ISO 1043-1, *Plastics — Symbols and abbreviated terms — Part 1: Basic polymers and their special characteristics (ISO 1043-1)*

ISO 4:1997, *Information and documentation — Rules for the abbreviation of title words and titles of publications*

CIE 15:2004, *Colorimetry*

CIE 17.4:1987, *International lighting vocabulary*

CIE 54.2:2001, *Retroreflection — Definition and measurement*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4:1997, CIE 17.4:1987 and the following apply.

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

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

### 3.1

#### traffic cone

three dimensional device of conical shape comprising one or more parts including a base plate, cone body and a retroreflective surface or surfaces



**3.2****base plate**

lowest part of the traffic cone which supports the cone body, having an upper visible surface, and a lower surface in contact with the support surface

**3.3****cone body**

part of the traffic cone which is conical in shape, but excludes the base plate and the retroreflective surface(s)

**3.4****category A cone**

traffic cone in which a minimum of 80 % of the nominal height of the cone is retroreflective

**3.5****category B cone**

traffic cone in which a minimum of 25 % of the nominal height of the cone body is retroreflective

**3.6****traffic cylinder**

three dimensional device of substantially cylindrical shape comprising one or more parts including a cylinder body, and a retroreflective surface or surfaces

**3.7****cylinder body**

part of the traffic cylinder which is substantially cylindrical in shape and supports the retroreflective surface or surfaces

**3.8****category A cylinder**

traffic cylinder in which a minimum of 80 % of the nominal height of the cylinder is retroreflective

**3.9****category B cylinder**

traffic cylinder in which a minimum of 25 % of the nominal height of the cylinder body is retroreflective

**3.10****retroreflective surface(s)**

part (or those parts) of a traffic cone or traffic cylinder fixed to the cone body or cylinder body which are retroreflective according to the requirements of this document

**3.11****height of traffic cone**

*H*

vertical distance, measured between the ground and the top of the traffic cone

Note 1 to entry: The height *H* of the traffic cone shall not deviate more than 5 % from the nominal height, as specified by the purchaser.

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