



NSAI
Standards

Irish Standard
I.S. EN 1463-1:2009 CORR APRIL 09

Road marking materials - Retroreflecting road studs - Part 1: Initial performance requirements

I.S. EN 1463-1:2009 Corr April 09

Incorporating amendments/corrigenda issued since publication:

<i>This document replaces:</i> I.S. EN 1463-1:1998	<i>This document is based on:</i> EN 1463-1:2009 EN 1463-1:1997	<i>Published:</i> 17 July, 1998	
This document was published under the authority of the NSAI and comes into effect on: 28 August, 2009		ICS number: 93.080.20	
NSAI 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie	Price Code: I
Údarás um Chaighdeáin Náisiúnta na hÉireann			

English Version

Road marking materials - Retroreflecting road studs - Part 1: Initial performance requirements

Produits de marquage routier - Plots rétroréfléchissants -
Partie 1 : Exigences initiales de performance

Straßenmarkierungsmaterialien - Markierungsknöpfe - Teil
1: Anforderungen im Neuzustand

This European Standard was approved by CEN on 17 February 2009.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Types of road stud.....	6
5 Performance requirements	7
5.1 Construction.....	7
5.2 Dimensions.....	7
5.3 Night-time visibility.....	7
5.3.1 Photometric requirements	7
5.3.2 Colorimetric requirements.....	9
5.4 Daytime visibility of temporary road studs.....	10
5.5 Resilience of depressible road studs	11
6 Road stud fixing.....	11
7 Marking	11
Annex A (normative) Test method for the determination of the coefficient of luminous intensity.....	12
A.1 General.....	12
A.2 Apparatus	12
A.3 Procedure	13
A.4 Calculation and expression of results.....	13
Annex B (normative) Test method for the determination of chromaticity co-ordinates of retroreflected radiation.....	15
B.1 General.....	15
B.2 Apparatus	15
B.3 Procedure	15
B.4 Calculation and expression of results.....	15
Annex C (normative) Test method for the determination of chromaticity co-ordinates and luminance factor for daytime visibility	17
C.1 General.....	17
C.2 Apparatus	17
C.3 Measurement and calculation	17
Annex D (normative) Test method for the determination of the resilience of depressible road studs	18
D.1 Apparatus	18
D.2 Procedure	18
D.3 Evaluation of the test	18
Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive.....	19
ZA.1 Scope and relevant characteristics.....	19
ZA.2 Procedure(s) for the attestation of conformity of retroreflecting road studs.....	20
ZA.2.1 System of attestation of conformity.....	20
ZA.2.2 Certificate and Declaration of Conformity.....	21
ZA.3 CE marking and labelling	22
Bibliography	25

Foreword

This document (EN 1463-1:2009) has been prepared by Technical Committee CEN/TC 226 "Road equipment", the secretariat of which is held by AFNOR.

This document EN 1463-1 2009 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2009, and conflicting national standards shall be withdrawn at the latest by September 2009.

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

This European Standard supersedes EN 1463-1:1997 and EN 1463-1:1997/A1:2003.

The technical change incorporated in this revision is the Table ZA.1 in Annex ZA.

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

Introduction

In Mandate M/111, there is a clear requirement for durability in use. In order to meet this requirement, EN 1463-1 specifies, in Annex ZA Table ZA.1, the standard EN 1463-2 (Road test performance specifications).

However, in the current Table ZA.1, the classes S0 and R0 (no performance determined) are included (just as a way to reflect the result of the mentioned durability test, which requires 1-year of road exposure for the applicant studs) and some notified bodies have interpreted this as meaning that it is not required to test to EN 1463-2 and consequently CE marks are being granted without durability being tested. However, in other cases, the mentioned test has been carried out; therefore, both types of road studs are now in the market granting a “well different” class of CE-marking.

In order to rectify this unsatisfactory situation it is proposed to amend the requirement for “R” to become R1 to R4 - i.e. eliminating R0, which might have caused the confusion, and thus meaning that a road test has to be carried out and the requirement for durability is met. In addition, it is also proposed that the requirement for “S” is deleted as this is not necessary to also have this to ensure durability is tested.

1 Scope

This European Standard specifies the initial performance requirements and laboratory test methods for retroreflecting road studs intended for use as permanent and temporary road marking materials.

2 Normative references

The following referenced documents are indispensable for the application 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 1463-2:2000, *Road marking materials – Retroreflecting road studs – Part 2: Road test performance specifications*

ISO 10526, *CIE standard illuminants for colorimetry*

ISO 10527, *CIE standard colorimetric observers*

CIE publication No. 054.2-2001, *Retroreflection: Definition and measurement*

IEC/CIE publication No. 017.4-1987, *International lighting vocabulary, 4th ed. (Joint publication IEC/CIE)*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions in CIE publication 17.4:1987 apply together with the following.

3.1

retroreflecting road stud (called “road stud” in this standard)

horizontal guiding device that reflects incident light by means of retroreflectors (see 3.2) in order to warn, guide or inform road users

NOTE Retroreflecting road studs may be constructed in either one or more integral parts and may be bonded to, anchored within or embedded within the road surface. The retroreflecting portion may be unidirectional or bidirectional, depressible or non depressible. This device may be either permanent (type P) or temporary (type T).

3.2

retroreflector

device which reverses the direction of visible light striking it and returns it along a path substantially parallel to its original path

NOTE It may be made of glass (type 1), plastic (type 2) or plastic with an abrasion resistant surface (type 3). It may have a reflective coating at the back.

3.3

non depressible road stud

substantially rigid road stud not designed to deform under the passage of traffic (type A)

3.4

depressible road stud

road stud designed to have one or more parts which deform under traffic and recover to their original geometry after removal of the traffic load (type B)

3.5

bonded road stud

road stud fixed to the road surface using an adhesive applied to the stud and/or to the road surface at the time of installation

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-