



SLOVENSKI STANDARD

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Robniki iz naravnega kamna za zunanje tlakovanje - Zahteve in preskusne metode

Kerbs of natural stone for external paving - Requirements and test methods

Bordsteine aus Naturstein für Außenbereiche - Anforderungen und Prüfverfahren

Bordures de pierre naturelle pour le pavage extérieur - Exigences et méthodes d'essai

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Ta slovenski standard je istoveten z: EN 1343:2012

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93.080.20	Materiali za gradnjo cest	Road construction materials

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EUROPEAN STANDARD

EN 1343

NORME EUROPÉENNE

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Kerbs of natural stone for external paving - Requirements and test methods

Bordures de pierre naturelle pour le pavage extérieur -
Exigences et méthodes d'essai

Bordsteine aus Naturstein für Außenbereiche -
Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 6 October 2012.

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.

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COMITÉ EUROPÉEN DE NORMALISATION
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EN 1343:2012 (E)**Foreword**

This document (EN 1343:2012) has been prepared by Technical Committee CEN/TC 178 "Paving units and kerbs", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2013, and conflicting national standards shall be withdrawn at the latest by August 2014.

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 document supersedes EN 1343:2001.

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 following changes have been made in this new edition:

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- a) Where possible the requirements refer to separate test methods prepared by CEN/TC 246, "Natural stones". The change was made to allow those placing the products on the market to use the same test results for a number of products.
- b) The values to be declared have been clarified and where applicable the declared values are now 'lower expected values'. SIST EN 1343:2013
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According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the performance requirements and the corresponding test methods for all natural stone kerbs used for external paving and road finishes.

External paving use includes all pavements typical of road works, such as pedestrian and trafficked areas, outdoor squares and similar to be used in an outdoor condition that are subject to the weathering agents, such as temperature changes, rain, ice, wind, etc.

This European Standard provides also for the evaluation of conformity and for marking of the natural stone slabs.

This European Standard also covers characteristics that are of importance to the trade.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1936, *Natural stone test methods — Determination of real density and apparent density, and of total and open porosity*

EN 12371, *Natural stone test methods — Determination of frost resistance*

EN 12372, *Natural stone test methods — Determination of flexural strength under concentrated load*

EN 12407, *Natural stone test methods — Petrographic examination*

EN 12440, *Natural stone — Denomination criteria*

EN 13373:2003, *Natural stone test methods — Determination of geometric characteristics on units*

EN 13755, *Natural stone test methods — Determination of water absorption at atmospheric pressure*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

kerb

unit greater than 300 mm in length, commonly used as edging to a road or footpath

Note 1 to entry: See Figure 1.

3.1.1

curved concave kerb

kerb, curved in plan with a concave face

3.1.2

curved convex kerb

kerb, curved in plan with a convex face

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- 3.2
upper face**
horizontal surface of a kerb intended to be seen when in use
- 3.3
bed face**
surface of a kerb intended to be in contact with the bedding material when in use
- 3.4
front face**
vertical traffic face of the kerb
- 3.5
rear face**
vertical and facing away from the traffic (probably in contact with the ground)
- 3.6
actual dimension**
dimension of a kerb as measured
- 3.7
work dimension**
size of a kerb as specified
- 3.8
overall length**
length of a kerb measured on the visible face
- Note 1 to entry: See Figure 2.
- 3.9
overall width**
shorter side of the rectangle with the smallest area able to enclose the kerb
- Note 1 to entry: This only applies to straight kerbs. The overall width of a curved kerb is the widest point of the cross-section of the kerb (see Figure 2).
- 3.10
height**
distance between the upper face and the bed face of the kerb
- 3.11
batter**
intended deviation from the vertical of the traffic face of a kerb
- 3.12
textured**
kerb with a surface finish produced by secondary processing, from a saw or hewn surface
- 3.13
fine textured**
surface finish with a maximum difference of 1,0 mm between peaks and depressions (for example, polished, honed or sawn with a diamond disc or blade)
- 3.14
coarse textured**
surface finish with more than 1,0 mm difference between peaks and depressions (for example, dolly pointed, shot blasted or flame textured)

3.15**hewn**

kerb with a natural surface finish which has not subjected to secondary processing, for example a riven or split face

3.16**tooled**

finish resulting from mechanical surface treatment and showing tool marks

3.17**lower expected value**

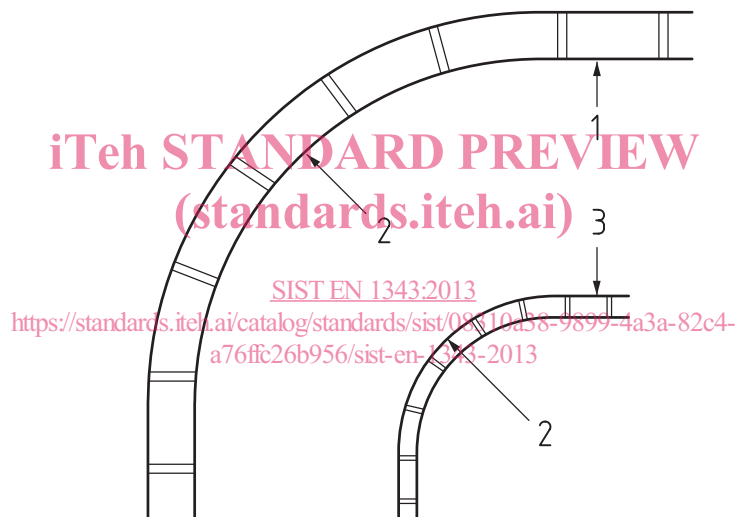
LEV

value (E_L) which corresponds to the 5 %-quantile of a logarithmic normal distribution for a confidence level of 75 %

3.18**higher expected value**

HEV

value (E_H) which corresponds to the 95 %-quantile of a logarithmic normal distribution for a confidence level of 75 %

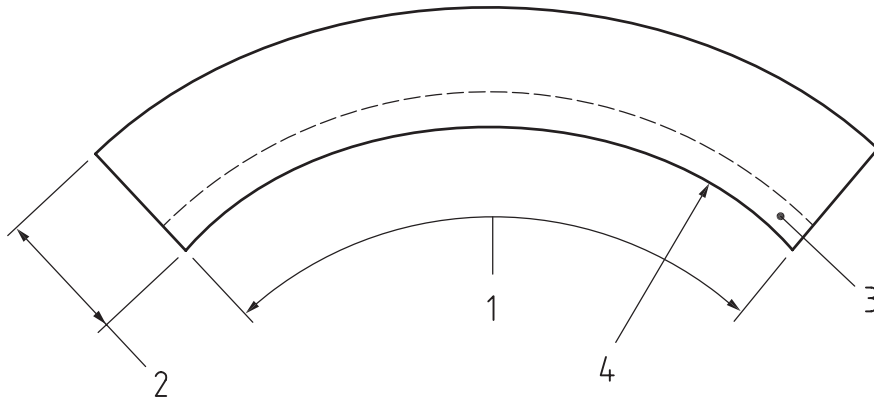
**Key**

1 = inner radius concave front face

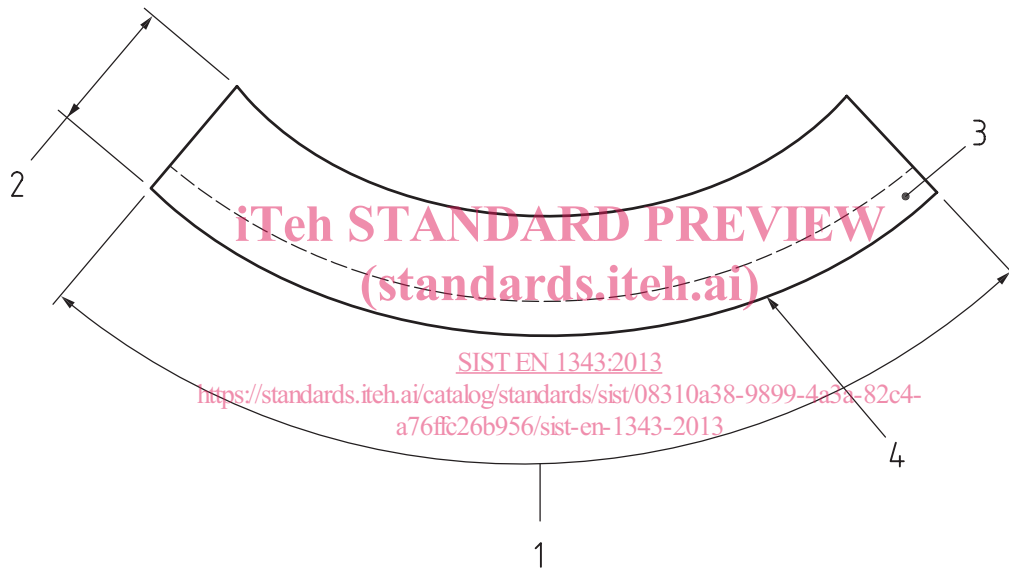
2 = radius

3 = outer radius convex front face

Figure 1 — Diagram showing convex and concave kerbs



a) Concave kerb



b) Convex kerb

Key

- 1 = overall length
- 2 = overall width
- 3 = batter or chamfer
- 4 = front face

Figure 2 — An example of a curved kerb showing the overall length and width

4 Requirements and test methods for slabs of natural stone

4.1 Introduction

4.1.1 General

Unless otherwise stated, kerbs shall be supplied in free running lengths. For curved kerbs the length is the measured visible face circumference. The manufacturer shall state the minimum and maximum working length of a kerb unit.

The ends of curved kerbs shall be radial.

Curved kerbs shall be identified by the radius of the vertical visible or traffic face. The overall length of a number of curved kerbs shall be measured without the joints on the edge common to the visible faces.

The minimum length of curved kerbs shall be 500 mm.

Nominally square arrises may have a chamfer with vertical and horizontal dimensions not exceeding 2 mm.

The dimensions of larger chamfers, radiused corners and splays, when used, shall be declared by the supplier. Examples of typical kerb cross-sections are shown in Figure 3.

4.1.2 Denomination

The denomination shall always be declared in accordance with EN 12440 (meaning traditional name, petrological family, typical colour and place of origin as precisely as possible for example geo coordinates).

4.1.3 Alteration of physical properties of the natural stone

If during production the natural stone kerbs have been subjected to a treatment that physically alters the properties of the stone (e.g. chemical treatment, patching or filling or other similar products for natural holes, faults or cracks), then the use of such treatment shall be stated.

In addition, specimens for testing shall be representative of the product and any processes that the stone is subjected to.

4.2 Dimensions

4.2.1 Overall width and height

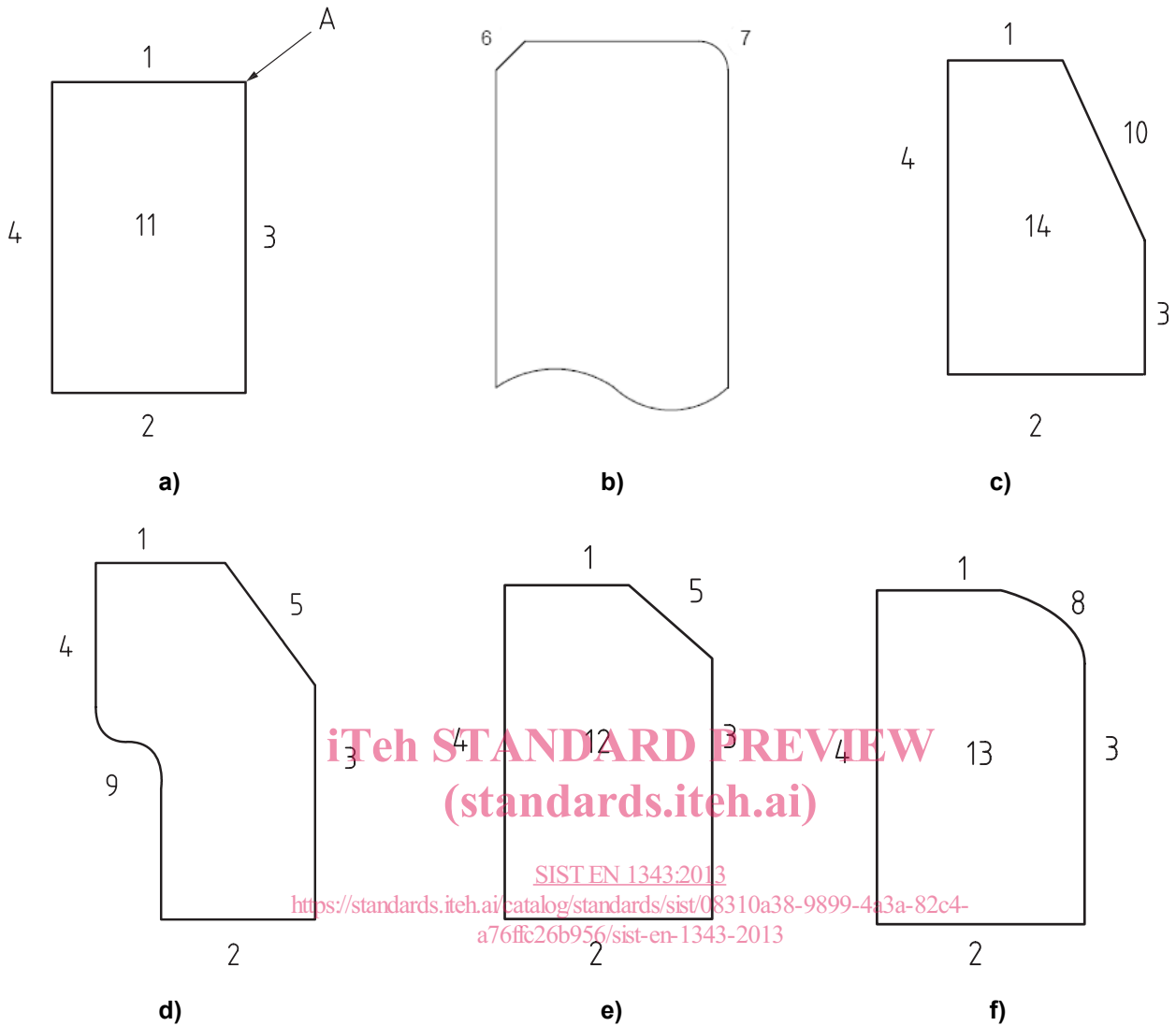
The overall width and height as laid shall be measured in accordance with EN 13373:2003, 5.2, and the deviations from the declared dimensions shall conform to the tolerances given in Table 1.

Table 1 — Tolerances on nominal overall width and height

Location	Width	Height		
		Class 0	Class 1	Class 2
Marking designation		H0	H1	H2
Between two hewn or tooled faces	± 10 mm	No requirement	± 30 mm	± 20 mm
Between one textured face and one hewn or tooled face	± 5 mm		± 20 mm	± 10 mm
Between two textured faces	± 3 mm		± 10 mm	± 5 mm

NOTE These apply to straight / square or circular / square – all others are specials and need a template.

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There maybe a fillet or chamfer on the arriss.

Key

A = arris

- 1 = upper face
- 2 = bed face
- 3 = front face
- 4 = back face
- 5 = splay
- 6 = chamfer
- 7 = round fillet
- 8 = bullnose
- 9 = undercut
- 10 = battered face
- 11 = rectangular kerb
- 12 = chamfered or splayed kerb
- 13 = bullnosed kerb
- 14 = half battered kerb

Figure 3 — Examples of typical kerb cross-sections