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Markbeläggningsplattor av natursten för utomhusbruk – Krav och provningsmetoder

Slabs of natural stone for external paving – Requirements and test methods

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Denna standard ersätter SS-EN 1341, utgåva 2 och SS-EN 1341/T1, utgåva 1.

The European Standard EN 1341:2012 has the status of a Swedish Standard. This document contains the official version of EN 1341:2012.

This standard supersedes the Swedish Standard SS-EN 1341, edition 2 and SS-EN 1341/T1, edition 1.

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EUROPEAN STANDARD

EN 1341

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2012

ICS 93.080.20

Supersedes EN 1341:2001

English Version

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

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

Platten 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
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 1341:2012) 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of an identical text or by endorsement, at the latest by May 2013, and conflicting national standards shall be withdrawn at the latest by August 2014.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 1341:2001.

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:

- 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'.
- c) Annex A (Annex B in the 2001 version) has been extended to include safety factors specific to different uses.

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 slabs 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 covers also characteristics that are of importance to the trade.

This European standard does not cover natural stone slabs for floors and stairs in buildings. In these cases EN 12058 [1] applies.

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*

EN 14157, *Natural stone test methods — Determination of the abrasion resistance*

EN 14231, *Natural stone test methods — Determination of the slip resistance by means of the pendulum tester*

3 Terms and definitions

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

3.1

external paving slab

unit of natural stone obtained by cutting or splitting used as a paving material, used for external paving and road finishes in which the working width exceeds two times the thickness

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- 3.2
upper face**
surface of a slab intended to be seen when in use
- 3.3
bed face**
surface of a slab intended to be in contact with the bedding material when in use
- 3.4
side face**
surface of a slab perpendicular to upper face and intended to be vertical in use
- 3.5
work dimension**
dimension of a slab, specified for its manufacture, to which the actual dimension is to conform within specified permissible tolerances
- 3.6
actual dimension**
dimension of a slab as measured
- 3.7
irregular plan form**
slab of random plan dimensions
- 3.8
thickness**
distance between the upper face and the bed face of the slab
- 3.9
overall length**
longer side of the rectangle with the smallest length able to enclose the slab
- 3.10
overall width**
shorter side of the rectangle with the smallest area able to enclose the slab
- 3.11
textured**
slab face with a surface finish produced by secondary processing, from a saw or hewn surface
- 3.12
fine textured**
surface finish with a maximum difference of 1,0 mm between peaks and depressions (e.g. polished, honed or sawn with a diamond disc or blade)
- 3.13
coarse textured**
surface finish with more than 1,0 mm difference between peaks and depressions (e.g. dolly pointed, shot blasted or flame textured)
- 3.14
hewn**
slab face or edge with a rough surface finish, e.g. a riven or split face or edge
- 3.15
tooled**
coarse finish resulting from mechanical surface treatment and showing tool marks

3.16

arris

edge produced by the meeting of two surfaces

Note 1 to entry: Sharp, rounded and chamfered arrises are shown in Figure 1.

3.17

lower expected value

E_L

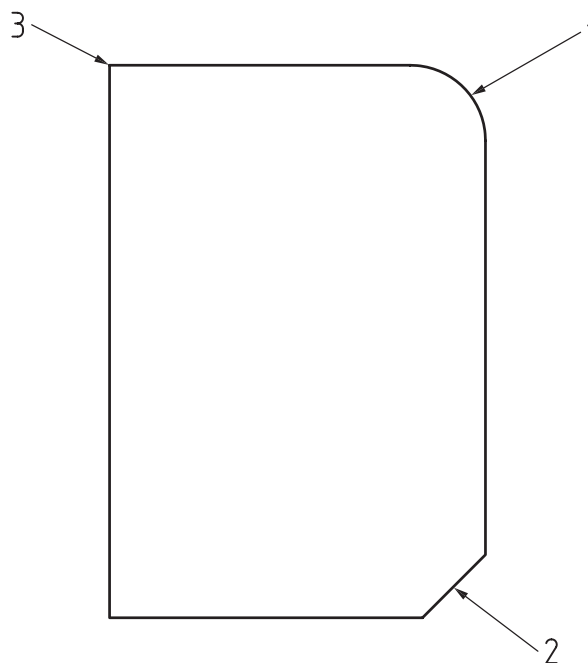
value which corresponds to the 5 %-quantile of a logarithmic normal distribution for a confidence level of 75 %

3.18

higher expected value

E_H

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



Key

- 1 rounded arris
- 2 chamfered arris
- 3 sharp arris

Figure 1 — Illustration of types of arris

4 Requirements and test methods for slabs of natural stone

4.1 General

4.1.1 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).