



SLOVENSKI STANDARD
SIST EN 1468:2022

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Nadomešča:
SIST EN 1468:2012

Naravni kamen - Surove plošče - Zahteve

Natural stone - Rough slabs - Requirements

Naturstein - Rohplatten - Anforderungen

Pierres naturelles - Tranches brutes - Exigences

Ta slovenski standard je istoveten z: EN 1468:2022

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Supersedes EN 1468:2012

English Version

Natural stone - Rough slabs - Requirements

Pierres naturelles - Tranches brutes - Exigences

Naturstein - Rohplatten - Anforderungen

This European Standard was approved by CEN on 19 September 2022.

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

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European foreword

This document (EN 1468:2022) has been prepared by Technical Committee CEN/TC 246 “Natural stones”, the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

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

This document supersedes EN 1468:2012.

The main technical changes in comparison to EN 1468:2012 are:

- addition of Note 1 to definition 3.4 “commercial size of a rough slab”;
- requirements for the Factory Production Control (FPC), including specimens for testing, are presented in greater detail in 6.3.1.

This document is one of a series of standards for requirements of natural stone products which includes the following:

- EN 1467, *Natural stone — Rough blocks — Requirements*
- EN 1468, *Natural stone — Rough slabs — Requirements*
- EN 1469, *Natural stone products — Slabs for cladding — Requirements*
<https://standards.iteh.ai/catalog/standards/sist/2676e835-09b7-4561-8cd0-1469>
- EN 12057, *Natural stone products — Modular tiles — Requirements*
- EN 12058, *Natural stone products — Slabs for floors and stairs — Requirements*
- EN 12059+A1, *Natural stone products — Dimensional stone work — Requirements*

Other standards on natural stone are produced by:

- a) CEN/TC 178
 - 1) EN 1341, *Slabs of natural stone for external paving — Requirements and test methods*
 - 2) EN 1342, *Setts of natural stone for external paving — Requirements and test methods*
 - 3) EN 1343, *Kerbs of natural stone for external paving — Requirements and test methods*
- b) CEN/TC 128
 - 1) EN 12326-1, *Slate and stone products for discontinuous roofing and cladding — Part 1: Product specification*
 - 2) EN 12326-2, *Slate and stone products for discontinuous roofing and cladding — Part 2: Methods of test for slate and carbonate slate*

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c) CEN/TC 125

1) EN 771-6, *Specification for masonry units — Part 6: Natural stone masonry units*

Other standards are relevant to stone aggregates for concrete, roads, railways and armourstone.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

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1 Scope

This document specifies requirements for rough slabs of natural stone from which products for use in buildings or commemorative stones and other similar applications are made.

It does not cover artificially agglomerated stony material nor installation.

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.

NOTE Besides the European Standards for test methods mentioned in this clause there exist further standards which can be used for scientific examinations, but which are not relevant for the application in practice according to this document.

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

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 12670:2019, *Natural stone — Terminology*

EN 13161, *Natural stone test methods — Determination of flexural strength under constant moment*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12670:2019 and the following apply.

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

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

3.1

dimensions of a rough slab

length, width (height) and thickness of a rough slab

Note 1 to entry: Dimensions are given in metres to two decimal places for length and width, and in millimetres for thickness.

3.2

gross size of a rough slab

size corresponding to the minimum circumscribed rectangle

EN 1468:2022 (E)**3.3****net size of a rough slab**

size corresponding to the greatest inscribed rectangle

3.4**commercial size of a rough slab**

size obtained by reducing net length and net width by 0,03 m

Note 1 to entry: The determination of the net and commercial dimensions of nonrectangular rough slabs can be agreed mutually.

3.5**rough slabs**

flat surface semi-finished product with unfinished edges obtained by sawing or splitting from a rough block

3.6**bush hammered finish**

finish obtained by using a bush hammer (percussion tool for roughening a surface, with a square head and with few pyramidal percussion teeth or points) or a bush hammering machine (machine consisting of feed rolls and an overhanging beam, supporting a pneumatic bush hammer)

[SOURCE: EN 12670:2019, 3.3.12, modified — Notes 1 and 2 to entry added to the definition]

3.7**flamed finish**

surface texture obtained by thermal treatment of the stone using a high temperature flame

[SOURCE: EN 12670:2019, 3.3.39]

3.8**sand blasted finish**

matt finishing resulting from the impact of the sand or other abrasive grains expelled by a sand jet

[SOURCE: EN 12670:2019, 3.3.70]

3.9**machine tooled finish**

a) finish resulting from the mechanical surface treatment with tools;

b) dressed finish clearly showing tool marks

[SOURCE: EN 12670:2019, 3.3.85]

4 Requirements**4.1 Requirements for geometric characteristics****4.1.1 Measurement criteria**

All measurements shall be carried out in accordance with EN 13373 and indicated in metres to two decimal places.

4.1.2 Requirements for thickness

The thickness shall not deviate from the nominal thickness by more than the tolerances given in Table 1.

Table 1 — Tolerances of the nominal thickness

Nominal thickness mm	Tolerance
up to 15	±1,5 mm
more than 15 up to and including 30	±10 %
more than 30 up to and including 80	±3 mm
more than 80	±5 mm

Stricter tolerances may be declared by the manufacturer.

For natural stone cleft/riven faces, the tolerances on thickness shall be declared by the manufacturer.

4.1.3 Requirements for flatness

The deviation of the surface from flatness shall not exceed 0,2 % of the slab length and shall not exceed 3 mm. For split rough slabs, the tolerance on flatness shall be declared by the manufacturer.

Stricter tolerances may also be declared by the manufacturer.

4.1.4 Requirements for surface finish

4.1.4.1 General

Surface finishes shall be carried out at least to the edges of the commercial size of rough slabs.

The surface finishing of some types of stones may typically involve the use of patching, fillers or other similar products for natural holes, faults or cracks, and this is to be considered as part of the normal processing.

In such cases, the type of treatment, as well as the type and nature of additional materials, shall be declared.

The surface profile obtained by splitting shall be within declared tolerances.

4.1.4.2 Requirements for surfaces obtained by sawing

Grooves caused by sawing operations shall not have a depth greater than 2 mm. If the rough slab is to be polished, the grooves' depth shall not be greater than 1 mm.

Deviation from flatness shall be in accordance with 4.1.3.

4.1.4.3 Requirements for surfaces after surface finishing

Surfaces shall have a regular appearance as a function of the finishing process, and shall be worked to meet the specified finish (e.g. making reference to samples, see 4.2.2) on all exposed surfaces.

NOTE 1 Surfaces obtained by means of hammer type tools are, for example:

- bush hammered finish (see 3.6);
- trimmed surfaces: finish obtained by using a pointed chisel and mallet or a grooving machine;

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- striated surfaces: finish obtained by using a claw chisel (percussion tool for roughening a surface, with the cutting end covered by several teeth of various sizes) or a ruling machine.

NOTE 2 Surfaces obtained by other finishing operations are, for example:

- flamed finish (see 3.7);
- sand blasted finish (see 3.8);
- water jet streamed finish: a matt textured surface finish, accomplished by exposing the surface to a steady jet of water under pressure;
- machine tooled finish (see 3.9);
- riven cut finish: rugged surface produced by splitting stone with a guillotine or chisel.

4.2 Requirements of natural stones for rough slabs**4.2.1 General**

The following characteristics shall be declared where requested by this document, or with reference to use conditions.

The declared values shall be representative of the current production. However, due to natural variations of the stone materials, deviations from the declared values may occur. Expected deviations shall be indicated by the manufacturer.

Rough slabs of natural stones may be back reinforced and reinforced by artificial resins.

The possibility that stone processing is likely to change the characteristics of the raw material (e.g. in consequence of strong bush hammering of the surface, of flaming or heating, of back reinforcing the slabs, or because of the use of artificial patching, fillers or other similar products for natural holes, faults, cracks and similar) shall be considered when determining the characteristics requested by this document.

4.2.2 Denomination

The denomination (traditional name, petrological family, typical colour and place of origin) shall always be declared in accordance with EN 12440.

NOTE The place of origin can be given by GPS coordinates.

The petrographic definition shall be determined in accordance with EN 12407.

4.2.3 Visual appearance

This characteristic shall be declared upon request.

The colour, veining, texture, etc. of the stone shall be identified visually (for example by a polished reference sample). The reference sample shall be provided by the supplier.

Any visual variations, for example inclusions and veins, are permissible, provided that they are characteristic of the relevant type of natural stone and provided that they do not adversely affect the performances of the slabs.

Visible cracks and fissures shall be marked on rough slabs.

4.2.4 Apparent density and open porosity

This characteristic shall always be declared.

The apparent density and open porosity shall be determined using the test method in EN 1936 and the results expressed accordingly.