

# SLOVENSKI STANDARD SIST EN 1467:2022

01-december-2022

Nadomešča: SIST EN 1467:2012

## Naravni kamen - Surovi bloki - Zahteve

Natural stone - Rough blocks - Requirements

Natursteine - Rohblöcke - Anforderungen

Pierres naturelles - Blocs bruts - Exigences

Ta slovenski standard je istoveten z: tan EN 1467:2022 30e8e7977760/sist-en-1467-2022

ICS:

91.100.15 Mineralni materiali in izdelki

Mineral materials and products

SIST EN 1467:2022

en,fr,de



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#### **SIST EN 1467:2022**

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

# EN 1467

October 2022

ICS 73.020; 91.100.15

Supersedes EN 1467:2012

**English Version** 

# Natural stone - Rough blocks - Requirements

Pierres naturelles - Blocs bruts - Exigences

Natursteine - Rohblöcke - 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

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

#### SIST EN 1467:2022

# EN 1467:2022 (E)

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# **European foreword**

This document (EN 1467:2022) 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of an identical text or by endorsement, at the latest by April 2023, and conflicting national standards shall be withdrawn at the latest by April 2023.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 1467:2012.

The main technical changes in comparison to EN 1467:2012 are:

- new definition of the commercial size of a rough block in 3.4;
- measurement criteria for the commercial size changed;
- 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 5d0-b826-30e8e7977760/sist-en-1467-2022
- 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 blocks of natural stone from which products for use in building or commemorative stones and other similar applications are made.

It does not apply to 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, Natural stone — Terminology

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

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

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# 3 Terms and definitions

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

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

ISO Online browsing platform: available at <a href="https://www.iso.org/obp">https://www.iso.org/obp</a>

— IEC Electropedia: available at <u>https://www.electropedia.org/</u>

#### 3.1

#### dimensions of a rough block

length *l*, width *b* and height *h*, given in the stated sequence in metres to two decimals places

#### 3.1.1 length

101

greater side in a natural layer where appropriate

### 3.1.2

# width

b

smaller side in the natural layer or at right angles to length

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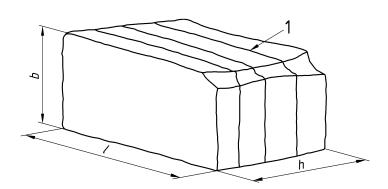
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#### **3.1.3 height** *h*

side at right angles to the natural layer or to the plane containing length *l* and width *b* 

Note 1 to entry: See Figure 1.

Dimensions in metres



#### Key

1 natural layer

Figure 1 — Dimensions of a rough block

#### 3.2

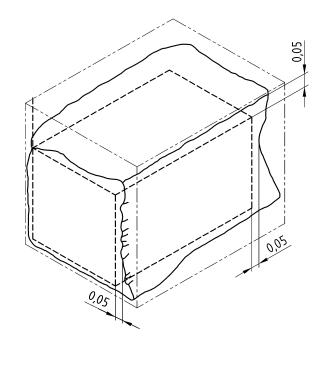
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## gross size of the rough block size defined by the lengths of the edges of the smallest cuboid circumscribed to a rough block

Note 1 to entry: See Figure 2. dards.iteh.ai/catalog/standards/sist/275c1fd2-f963-45d0-b826-30e8e7977760/sist-en-1467-2022

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Dimensions in metres



Кеу

gross size commercial size

## Figure 2 — Gross sizes, commercial sizes of a rough block

Note 2 to entry: For shapeless rough blocks for commercial purposes, see also 4.1.2 and 4.1.4.

**3.3** https://standards.iteh.ai/catalog/standards/sist/275c1fd2-f963-45d0-b826-

# net size of a rough block <sup>30</sup>

size which is determined by establishing the greatest inscribed cuboid block (see Note)

Note 1 to entry: The inscribed cuboid block shall not contain any sides without right angles nor contain drill holes and other holes; the resulting size represents the net size.

#### 3.4

#### commercial size of a rough block

size obtained by reducing each net size dimension

Note 1 to entry: See Figure 2.

#### 3.5

#### rough block

basis of the usable stone consisting of rocks obtained directly from quarries or erratics with no processing whatsoever except extraction and shaping by cutting or splitting

#### 3.6

#### rough block of specific size

squared rough block with certain given dimensions

#### 3.7

#### shapeless rough block

rough block without regular shape and size

#### 3.8

#### squared rough block

rough block which corresponds approximately to a regular cuboid

Note 1 to entry: Normally the ratio obtainable by dividing the mass of the squared rough block by the apparent density should be bigger than 80 % of the gross size. If such a ratio is equal to or less than 80 %, the block is considered a shapeless rough block.

## **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 decimals places. The commercial size of a rough block refers either to gross or net size and excluding recognized defects and it may allow for a general reduction for commercial purpose only, usually net size dimensions minus 0,05 m (see Figure 2).

#### 4.1.2 Requirements on shape

The six sides of squared rough block shall be approximately flat, right-angled and parallel, and correspond to the shape of a cuboid. Deviations from the cuboid shape are permitted.

Shapeless rough blocks for commercial purposes are only measured by mass, (see 4.1.4); gross size shall be provided upon request.

Rough blocks of specific size shall have dimensions not lower than the minimum values and not greater than the maximum values agreed between the purchaser and supplier.

#### 4.1.3 Requirements for volume

The volume of a rough block shall be stated in cubic metres to three decimals places. The volume may be calculated by dividing the mass of the block by the apparent density.

#### 4.1.4 Requirements for mass

The mass of a rough block shall be stated in tonnes with three decimals. For commercial purposes, shapeless rough blocks shall be measured only by mass, gross size shall be provided upon request.

#### 4.2 Requirements of natural stone for rough blocks

#### 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.

In case of layered stone: If a rough block contains different types of stones (see 4.2.2) all characteristics shall be declared.

In case of highly heterogeneous and anisotropic lithotypes, see 4.2.2, all characteristics shall be declared.

#### 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.