



SLOVENSKI STANDARD
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Aglomeriran kamen - Plošče, kopalniški elementi in kuhinjski pulti, izdelani po meri

Agglomerated stone - Slabs and cut-to-size products for vanity and kitchen tops

Künstlich hergestellter Stein - Platten und auf Maß geschnittene Produkte für Sanitärbereichs- und Küchenarbeitsflächen

Pierre reconstituée - Plaques et produits coupés sur mesure pour tables de toilette et plans de travail de cuisine

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 246.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (prEN 15388:2019) has been prepared by Technical Committee CEN/TC 246 “Natural stones”, the secretariat of which is held by UNI.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 15388:2008.

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

- EN 15285, *Agglomerated stone — Modular tiles for flooring and stairs (internal and external)*,
- EN 15286, *Agglomerated stone — Slabs and tiles for wall finishes (internal and external)*.

The significant changes between this document and the previous edition are listed herewith:

- addition of the note to Clause 1;
- updating of Clauses 2, 5.3, 6;
- deletion of old Clause 7;
- updating of Tables 1 and 2;
- updating of Annex A.

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prEN 15388:2019 (E)**1 Scope**

This document specifies requirements and appropriate test methods for slabs and cut-to-size products of agglomerated stone which are made for use as vanity and kitchen tops, or other similar use in furnishing (e.g. splash zone).

NOTE “Agglomerated stones” are nowadays commercially termed “engineered-stones”.

This document does not cover secondary operations including site 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.

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

EN 13501-1, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*

EN 14617-1, *Agglomerated stone — Test methods — Part 1: Determination of apparent density and water absorption*

EN 14617-2, *Agglomerated stone — Test methods — Part 2: Determination of flexural strength (bending)*

EN 14617-6, *Agglomerated stone — Test methods — Part 6: Determination of thermal shock resistance*

EN 14617-9, *Agglomerated stone — Test methods — Part 9: Determination of impact resistance*

EN 14617-10, *Agglomerated stone — Test methods — Part 10: Determination of chemical resistance*

EN 14617-11, *Agglomerated stone — Test methods — Part 11: Determination of linear thermal expansion coefficient*

EN 14618, *Agglomerated stone — Terminology and classification*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14618 and the following apply.

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

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

3.1**rough slab**

semi-finished agglomerated stone product with edges obtained either by sawing from a block or by moulding, the size of which is given by nominal dimensions (length - width -, thickness, in this order), expressed in millimetres and the surface of which may or may not be the finished surface

Note 1 to entry: Examples are given in Figure 1.

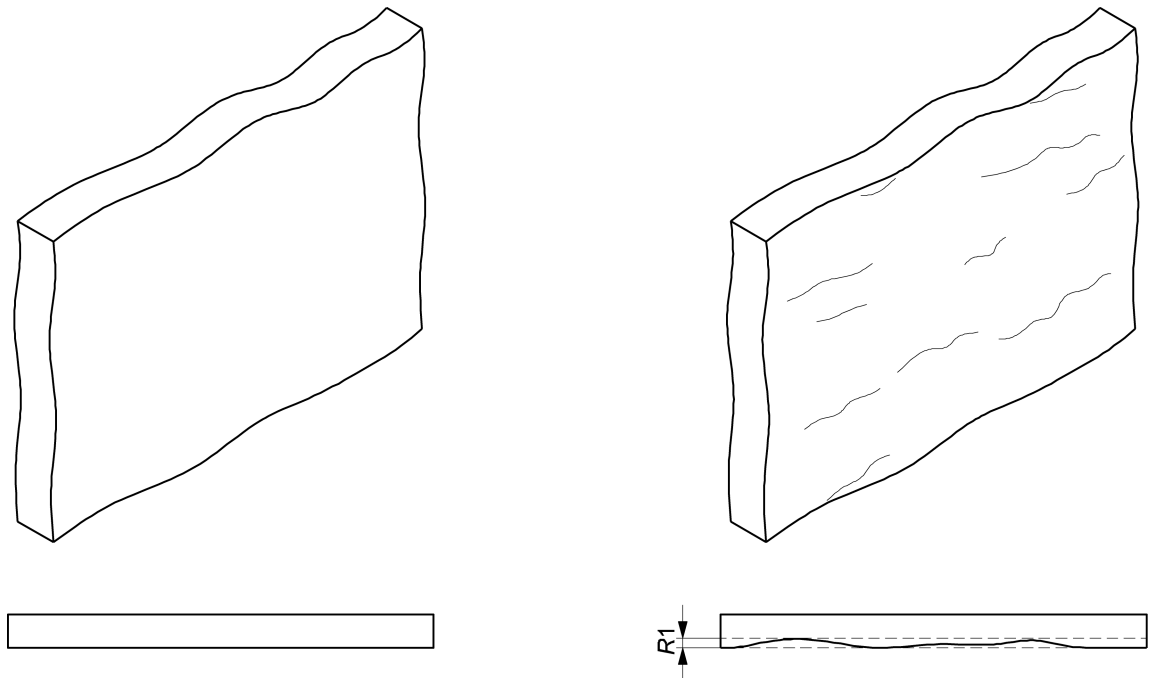


Figure 1 — Examples of rough slabs

3.2 slab

finished agglomerated product obtained from rough slabs, the dimensions of which are given by length - width - thickness (in this order), expressed in millimetres according to defined tolerances and the surface of which is a finished surface ready to use

3.3 cut-to-size product

finished agglomerated product obtained from a rough slab or a slab, the dimensions of which need to be referred to in a template or a drawing

Note 1 to entry: Examples are given in Figure 2.

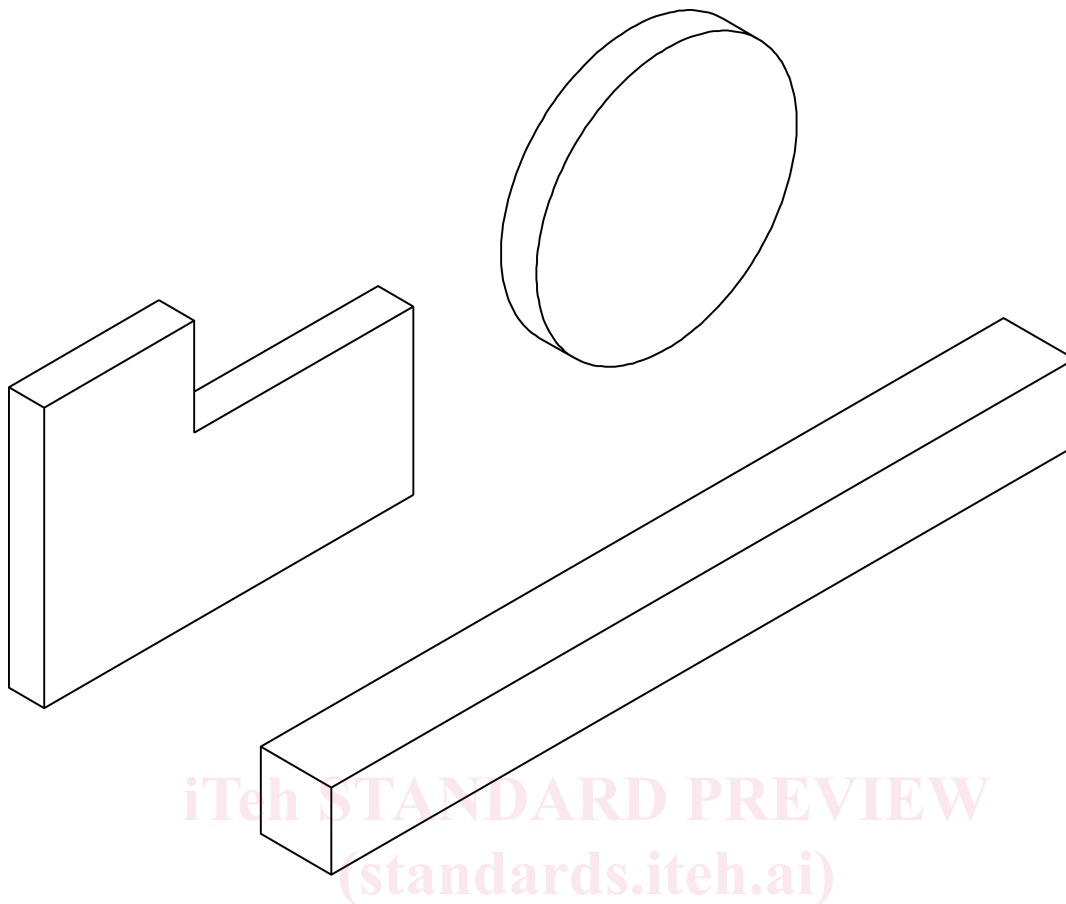


Figure 2 — Examples of cut-to-size products

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4 Requirements

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4.1 Geometric characteristics

4.1.1 Dimensions

The dimensions (length l , width b and thickness d , in this order, expressed in millimetres) of a slab and a cut-to-size product may be declared by the manufacturer.

The dimensions of cut-to-size products shall be referred to a template or a drawing.

4.1.2 Tolerances for dimensions for slabs and cut-to-size products

Tolerances in dimensions of slabs and cut-to-size products shall be as given in Table 2. The dimensions (i.e. length, width and thickness) of slabs and cut-to-size products shall be determined according to EN 13373.

Stricter deviations may be declared by the manufacturer.

Table 1 — Tolerances in dimensions for slabs and cut-to-size products

Characteristics	Tolerances on dimensions of	
	slabs	cut-to-size products
Length and width	> 1 000 mm - 20 mm/+10 mm	±1,0 mm
Other dimensions with reference to the template	-	±1,0 mm
Thickness	±1,2 mm	
Squareness	±0,2 % ^a	
Flatness: – centre curvature – edge curvature – warping	±0,2 %	
^a Percentage is calculated on the diagonals		

4.2 Requirements for surface finish

4.2.1 General

Surface finishes shall extend uniformly to the edges of slabs and cut-to-size products. The uniformity shall be guaranteed on at least 90 % of the total surface of the element.

Surfaces of slabs and cut-to-size products shall have a regular appearance as a result of the finishing process and may be worked to meet the finish declared.

Stricter values may be declared by the manufacturer.

4.2.2 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 finish declared (e.g. by submission of samples beforehand between the purchaser and supplier).

The surface roughness of the visible face can be directly obtained by moulding and to present an aspect structured with relief.

EXAMPLE of the surface finishes are:

- sandblasted surfaces (obtained for example by means of a sandblasting action),
- fine ground surfaces (obtained for example by means of a grinding disk of grain size F 200),
- honed finished surfaces (obtained for example by means of a polishing disk with grain size F 400),
- highly polished surfaces (obtained for example by means of a polishing disk or felt),
- structured aspect (obtained by catch of print or artistic creation).

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If other types of surface finishes are used, these shall be declared by the manufacturer.

For finely ground surfaces, honed surfaces and highly polished surfaces, it falls under the responsibility of the manufacturer to declare, according to the colour of the product, the minimum degree of gloss to be expected.

4.2.3 Requirements for the backside

The unexposed surface shall have a regular appearance. Small cracks or cuts are permitted within 10 cm from the sides of the slabs.

When the finishing process for the unexposed surface foresees a calibrated surface, the maximum surface roughness shall not exceed 0,5 mm.

4.2.4 Requirements for the edges

The edges of the cut-to-size product shall be referred to a drawing and tolerances shall be defined accordingly.

5 Characteristics of agglomerated stones for vanity and kitchen tops

5.1 General

The following characteristics shall be declared when subject to regulatory requirements and may be declared otherwise with reference to the conditions of the end usage.

Contractual specifications may be used to establish reference values, e.g. stated in design or supplier data sheet, due account taken of any regulatory requirements applicable.

5.2 Visual appearance

When required, the colour, roughness, of the slabs and cut-to size products shall be identified visually, e.g. by a range of samples selected in agreement by manufacturer and purchaser following the criteria given in EN 14617-16.

Any visual variations, e.g. inclusions and veins, are permissible provided that they are characteristic of the relevant type of agglomerated stone and provided that they do not adversely affect any performance of the other characteristics of the slabs and cut-to-size products.

Reference sample, visual inspection and acceptance criteria are described in Annex A.

5.3 Reaction to fire

The reaction to fire performance of slabs or cut-to-size products shall be declared as the class in accordance with EN 13501-1

5.4 Apparent density and water absorption

When required, the values for apparent density and water absorption shall be determined according to EN 14617-1 and the result of the water absorption shall be declared accordingly.

5.5 Flexural tensile strength

When required, the flexural strength shall be determined according to EN 14617-2 and the result expressed accordingly.