Natural stone products - Dimensional stone work - Requirements

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12059:2008 sisaldab Euroopa standardi EN 12059:2008 ingliskeelset teksti.	This Estonian standard EVS-EN 12059:2008 consists of the English text of the European standard EN 12059:2008.
Standard on kinnitatud Eesti Standardikeskuse 24.04.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 24.04.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 28.02.2008.	Date of Availability of the European standard text 28.02.2008.
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Produits en pierre naturelle - Pierre de taille - Exigences

Natursteinprodukte - Steine für Massivarbeiten - Anforderungen

This European Standard was approved by CEN on 12 January 2008.

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Foreword

This document (EN 12059:2008) 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of an identical text or by endorsement, at the latest by August 2008, and conflicting national standards shall be withdrawn at the latest by August 2008.

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.

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1 Scope

This European Standard specifies requirements for the following stone units:

a) Structural solid stone units:

   i. Load bearing stone elements, typically subject to prevailing compression stresses, such as solid columns, arches and similar;

   ii. Solid stone elements used for parapets, handrails, balustrades, copings and the like, intended to withstand horizontal live loadings in addition to any dead load.

b) Finishing solid stone units:

   i. Curved cladding panels, for the external finishing of walls, columns or pilasters;

   ii. Stone elements for framing one or more side openings in building walls or floors, such as sills, jambs, architraves and similar.

This European Standard does not include stone masonry units, as defined in EN 771-6, stone which is a 'cast-on' finish to pre-cast concrete or agglomerated stones. Moreover it does not cover commemorative or funeral stones and sculptures, when they do not show the above mentioned characteristics.

2 Normative references

The following referenced documents are indispensable for the application 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 1925, *Natural stone test methods - Determination of water absorption coefficient by capillarity*

EN 1926, *Natural stone test methods - Determination of uniaxial compressive strength*

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 12670:2001, *Natural stone - Terminology*

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

EN 13373:2003, *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 13755, *Natural stone test methods - Determination of water absorption at atmospheric pressure*

EN 14066, *Natural stone test methods - Determination of resistance to ageing by thermal shock*

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 standard.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12670:2001 and the following apply.

3.1
dimensional stone work
stone element worked to any specific dimensions for inside or outside application in the building sector

NOTE Dimensional stone work includes:

— flat stone elements which are not used as slabs for cladding, (see EN 1469) or slabs for floors and stairs (see EN 12058) and also for furniture (e.g. tables, kitchen tops);

— curved stones or three-dimensional shaped stone elements.

4 Requirements

4.1 Requirements for geometric characteristics

4.1.1 General

The dimensions shall be as given in the appropriate design drawings.

All measurements shall be carried out in accordance with EN 13373 and all measured values of individual units shall fall within the required tolerances.

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 on the nominal thickness

Nominal thickness in mm	**Tolerance**
More than 15 up to and including 30	± 10 % [a]
More than 30 up to and including 80	± 3 mm [b]
More than 80	± 5 mm [c]
[a] in case of elements to be assembled the tolerance of the visual thickness shall become respectively ± 0,5 mm [b] in case of elements to be assembled the tolerance of the visual thickness shall become respectively ± 1 mm [c] in case of elements to be assembled the tolerance of the visual thickness shall become respectively ± 2 mm	

Stricter tolerances may be declared by the supplier.

The required thickness of the stone elements shall result from a structural analysis or similar procedure which takes into account the technical and physical properties of the stone and the intended application.

For natural cleft/riven faces, Table 1 does not apply and the tolerances shall be declared by the supplier.