



# SLOVENSKI STANDARD

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### Specifikacija za malte za zidanje - 2. del: Malta za zidanje

Specification for mortar for masonry - Part 2: Masonry mortar

Festlegungen für Mörtel im Mauerwerksbau - Teil 2: Mauermörtel

Définitions et spécifications des mortiers pour maçonnerie - Partie 2: Mortiers de montage des éléments de maçonnerie

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#### **ICS:**

91.100.10 Cement. Mavec. Apno. Malta Cement. Gypsum. Lime.  
Mortar

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**en,fr,de**

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EUROPEAN STANDARD

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## Specification for mortar for masonry - Part 2: Masonry mortar

Définitions et spécifications des mortiers pour maçonnerie - Partie 2: Mortiers de montage des éléments de maçonnerie

Festlegungen für Mörtel im Mauerwerksbau - Teil 2: Mauer Mörtel

This European Standard was approved by CEN on 9 April 2016.

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.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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**EN 998-2:2016 (E)****European foreword**

This document (EN 998-2:2016) has been prepared by Technical Committee CEN/TC 125 “Masonry”, the secretariat of which is held by BSI.

This document supersedes EN 998-2:2010.

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of an identical text or by endorsement, at the latest by May 2017, and conflicting national standards shall be withdrawn at the latest by August 2018.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and supports basic requirements for construction works of the EU Construction Products Regulation (Regulation (EU) No 305/2011).

It also takes into account the general rules for reinforced and unreinforced masonry in Eurocode 6.

For relationship with EU Regulation, see informative Annex ZA, which is an integral part of this document.

The most significant changes compared to the previous edition include:

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- SIST EN 998-2:2017  
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- a) implementation of new regulatory (CPR) terminology where relevant;
  - b) new subclause 5.4.2.2 on Flexural bond strength (deriving from Finnish legal query);
  - c) revised clauses on Assessment and verification of constancy of performance (AVCP);
  - d) new explanatory note added to tabulated values in Annex C;
  - e) new annex with indicative frequencies on testing for factory production control (informative);
  - f) revised Annex ZA (informative);
  - g) some minor editorial changes.

No changes to existing technical classes and/or threshold levels have been made.

EN 998, *Specification for mortar for masonry* consists of:

- *Part 1: Rendering and plastering mortar;*
- *Part 2: Masonry mortar.*

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.

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.

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EN 998-2:2016 (E)

## Introduction

The characteristics required of a mortar are related to its use.

They are considered in two groups, namely those relating to the fresh, unhardened mortar and those to the hardened mortar.

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## 1 Scope

This European Standard specifies requirements for factory-made masonry mortars (bedding, jointing and pointing) for use in masonry walls, columns and partitions (e.g. facing and rendered masonry, load bearing or non-load bearing masonry structures for buildings and civil engineering works).

This European Standard defines for fresh mortar the performance related to workable life, chloride content, air content, density and correction time (for thin-layer mortar only). For hardened mortar it defines, e.g. performance related to compressive strength, bond strength, density measured according to the corresponding test methods contained in separate European Standards.

This European Standard provides for the assessment and verification of constancy of performance (AVCP) of the product to this European Standard. The marking requirement for products covered by this European Standard is included.

This European Standard covers masonry mortars defined in Clause 3 with the exception of site made mortar. However, this European Standard or part of this European Standard may be used in conjunction with codes of application and national specifications covering site made mortar.

## 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 771 (all parts), *Specification for masonry units*

EN 1015-1, *Methods of test for mortar for masonry - Part 1: Determination of particle size distribution (by sieve analysis)*

[SIST EN 998-2:2017](https://standards.iteh.ai/catalog/standards/sist/d186f6df-9cee-4e4d-bfde-4a1f0801300e/en-1015-1-2017)

EN 1015-2, *Methods of test for mortar for masonry - Part 2: Bulk sampling of mortars and preparation of test mortars*

EN 1015-7, *Methods of test for mortar for masonry - Part 7: Determination of air content of fresh mortar*

EN 1015-9, *Methods of test for mortar for masonry - Part 9: Determination of workable life and correction time of fresh mortar*

EN 1015-10, *Methods of test for mortar for masonry - Part 10: Determination of dry bulk density of hardened mortar*

EN 1015-11, *Methods of test for mortar for masonry - Part 11: Determination of flexural and compressive strength of hardened mortar*

EN 1015-17, *Methods of test for mortar for masonry - Part 17: Determination of water-soluble chloride content of fresh mortars*

EN 1015-18, *Methods of test for mortar for masonry - Part 18: Determination of water absorption coefficient due to capillary action of hardened mortar*

EN 1052-3, *Methods of test for masonry - Part 3: Determination of initial shear strength*

EN 1052-5, *Methods of test for masonry - Part 5: Determination of bond strength by the bond wrench method*

**EN 998-2:2016 (E)**

EN 1745:2012, *Masonry and masonry products - Methods for determining thermal properties*

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

**3 Terms and definitions**

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

**3.1****masonry mortar**

mix of one or more inorganic binders, aggregates, water, and sometimes additions and/or admixtures for bedding, jointing and pointing of masonry

**3.2****fresh masonry mortar**

mortar completely mixed and ready for use

**3.3****Type of masonry mortar, defined according to concept****3.3.1****designed masonry mortar**

mortar whose composition and manufacturing method is chosen by the producer in order to achieve specified properties (performance concept)

**3.3.2****prescribed masonry mortar**

mortar made in predetermined proportions, the properties of which are assumed from the stated proportion of the constituents (recipe concept)

**3.4****Type of masonry mortar, defined according to properties and/or use****3.4.1****general purpose masonry mortar (G)**

masonry mortar without special characteristics

**3.4.2****thin layer masonry mortar (T)**

designed masonry mortar with a maximum aggregate size less than or equal to a prescribed figure (see 5.5.2)

**3.4.3****lightweight masonry mortar (L)**

designed masonry mortar with a dry hardened density below a prescribed figure (see 5.4.5)

### 3.5

#### Type of masonry mortar, defined according to the mode of manufacture

##### 3.5.1

###### factory-made masonry mortar

mortar batched and mixed in a factory

Note 1 to entry: It can be "dry mortar" which is ready-mixed, only requiring the addition of water or "wet mortar" which is supplied ready for use.

##### 3.5.2

###### semi-finished factory made masonry mortar

mortar described in either 3.5.2.1 or 3.5.2.2

##### 3.5.2.1

###### pre-batched masonry mortar

mortar whose constituents are wholly batched in a factory, supplied to the building site and mixed there according to the manufacturer's specification and conditions

##### 3.5.2.2

###### premixed lime-sand- masonry mortar

mortar whose constituents are wholly batched and mixed in a factory, supplied to the building site where further constituents specified or provided by the factory are added (e.g. cement)

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##### 3.5.3

###### site-made masonry mortar (standards.iteh.ai)

mortar composed of individual constituents batched and mixed on the building site

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##### 3.6

###### binder

material used to hold solid particles together in a coherent mass, e.g. cement, building lime

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##### 3.7

###### aggregate

granular material that does not contribute to the hardening reaction of the mortar

##### 3.8

###### admixture

material added in small quantities to produce specified modifications to the properties

##### 3.9

###### addition

finely divided inorganic material (which is not an aggregate or binder) that can be added to mortar in order to improve or achieve special properties

##### 3.10

###### bond strength

adhesion between the masonry mortar and the masonry unit

Note 1 to entry: The bond strength can either be determined as shear bond strength or as flexural bond strength.

**EN 998-2:2016 (E)****3.11****declared value**

value that a manufacturer is confident in achieving, taking into account the precision of test method, the variability of the production process(es) and the product performance

Note 1 to entry: Characteristic strength values may be determined in accordance with the relevant test methods.

**3.12****masonry subjected to severe exposure**

masonry or elements of masonry which are subjected to saturation with water (driving rain, ground water) combined with frequent freeze/thaw-cycling due to climatic conditions, and absence of protective features

**3.13****masonry subjected to moderate exposure**

masonry or elements of masonry which are exposed to moisture and freeze/thaw-cycling, excluding constructions subjected to severe exposure

**3.14****masonry subjected to passive exposure**

masonry or elements of masonry which are not intended to be exposed to moisture and freezing conditions

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**3.15****product-type**

set of representative performance levels or classes of a construction product, in relation to its essential characteristics, produced using a given combination of raw materials or other elements in a specific production process

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Note 1 to entry: The definition is taken from Regulation (EU) No. 305/2011.

**4 Materials**

Raw materials shall have characteristics permitting the finished product to conform to the requirements of this European Standard. The manufacturer shall keep records of how suitability of materials is established.

**5 Product characteristics****5.1 General**

The requirements on characteristics for fresh and hardened mortar specified in this European Standard shall be defined in terms of the test methods and other procedures referred to in this European Standard. The conformity criteria given in the following subclauses relate to product-type determination (see 8.2) and consignments testing (in accordance with Annex A). For production evaluation, the manufacturer shall define the conformity criteria in the factory production control documentation (see 8.3).

NOTE The characteristics of mortar are specified under laboratory conditions and cannot always be directly compared with the characteristics obtained under site conditions.