

MÜÜRIMÖRTIDE SPETSIFIKATSIOON. OSA 2:
MÜÜRIMÖRT

Specification for mortar for masonry - Part 2: Masonry
mortar

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 998-2:2016 sisaldab Euroopa standardi EN 998-2:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 998-2:2016 consists of the English text of the European standard EN 998-2:2016.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 09.11.2016.	Date of Availability of the European standard is 09.11.2016.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 91.100.10

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

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.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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

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

Contents

Page

European foreword.....	4
Introduction	6
1 Scope.....	7
2 Normative references.....	7
3 Terms and definitions.....	8
4 Materials.....	10
5 Product characteristics.....	10
5.1 General.....	10
5.2 Characteristics of fresh mortar.....	11
5.2.1 Workable life.....	11
5.2.2 Chloride content.....	11
5.2.3 Air content.....	11
5.3 Proportion of constituents.....	11
5.4 Characteristics of hardened mortar.....	11
5.4.1 Compressive strength.....	11
5.4.2 Bond strength.....	12
5.4.3 Water absorption.....	13
5.4.4 Water vapour permeability.....	13
5.4.5 Density (dry hardened mortar).....	13
5.4.6 Thermal conductivity.....	13
5.4.7 Durability.....	13
5.4.8 Reaction to fire.....	13
5.4.9 Dangerous substances.....	13
5.5 Additional requirements for thin layer mortars.....	14
5.5.1 General.....	14
5.5.2 Aggregates.....	14
5.5.3 Correction time.....	14
5.6 Mixing of mortar on site.....	14
6 Designation of masonry mortar.....	14
7 Marking and labelling.....	15
8 Assessment and verification of constancy of performance (AVCP).....	15
8.1 General.....	15
8.2 Product-type determination.....	15
8.2.1 General.....	15
8.2.2 Sampling.....	16
8.2.3 Reference test.....	16
8.2.4 Repeating of product-type determination.....	16
8.2.5 Recording.....	16
8.2.6 Application of test methods.....	16
8.3 Factory Production Control, FPC.....	16
8.3.1 General.....	16
8.3.2 Process control.....	16

8.3.3	Finished product conformity	17
8.3.4	Statistical techniques	17
8.3.5	Traceability – marking and stock control of products	17
8.3.6	Non-conforming products	18
Annex A (normative) Sampling for product-type determination and independent testing of consignments		
		19
A.1	General	19
A.2	Sampling procedure	19
Annex B (informative) Use of masonry units and masonry mortar		
		20
Annex C (normative) Characteristic initial shear strength of designed masonry mortars		
		22
Annex D (informative) Indicative test frequencies for Factory Production Control (FPC)		
		23
Annex ZA (informative) Relationship of this European Standard with Regulation (EU) No.305/2011		
		25
ZA.1	Scope and relevant characteristics	25
ZA.2	System of Assessment and Verification of Constancy of Performance (AVCP)	26
ZA.3	Assignment of AVCP tasks	26
Bibliography		
		28

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:

- 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.

This document is a preview generated by EVS

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.

This document is a preview generated by EVS

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)*

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 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)