

BS EN 998-1:2016



BSI Standards Publication

Specification for mortar for masonry

Part 1: Rendering and plastering mortar

National foreword

This British Standard is the UK implementation of EN 998-1:2016. It supersedes BS EN 998-1:2010 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/519/2, Mortar.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2016.
Published by BSI Standards Limited 2016

ISBN 978 0 580 84516 1

ICS 91.100.10

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 November 2016.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 998-1

November 2016

ICS 91.100.10

Supersedes EN 998-1:2010

English Version

**Specification for mortar for masonry - Part 1: Rendering
and plastering mortar**

Définitions et spécifications des mortiers pour
maçonnerie - Partie 1: Mortiers d'enduits minéraux
extérieurs et intérieurs

Festlegungen für Mörtel im Mauerwerksbau - Teil 1:
Putzmörtel

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	5
1 Scope.....	6
2 Normative references.....	6
3 Terms, definitions and abbreviated terms.....	7
3.1 Terms and definitions	7
3.2 Abbreviated terms.....	9
4 Materials.....	10
5 Product characteristics.....	10
5.1 General.....	10
5.2 Characteristics of fresh mortar.....	10
5.2.1 Workable life	10
5.2.2 Air content.....	10
5.3 Characteristics of hardened mortar.....	10
5.3.1 General.....	10
5.3.2 Durability.....	11
5.3.3 Reaction to fire.....	11
5.3.4 Dangerous substances.....	11
5.4 Mixing of mortar on site	14
6 Designation of rendering and plastering mortars	14
7 Marking and labelling.....	14
8 Assessment and verification of constancy of performance (AVCP)	14
8.1 General.....	14
8.2 Product-type determination	14
8.2.1 General.....	14
8.2.2 Sampling.....	15
8.2.3 Reference test.....	15
8.2.4 Repeating of product-type determination	15
8.2.5 Recording.....	15
8.2.6 Application of test methods.....	15
8.3 Factory Production Control, FPC	15
8.3.1 General.....	15
8.3.2 Process control.....	15
8.3.3 Finished product conformity	16
8.3.4 Statistical techniques.....	16
8.3.5 Traceability – marking and stock control of products	16
8.3.6 Non-conforming products.....	17
Annex A (normative) Sampling for product-type determination and independent testing of consignments.....	18
A.1 General.....	18
A.2 Sampling procedure.....	18

Annex B (informative) Indicative test frequencies for Factory Production Control (FPC).....	19
Annex ZA (informative) Relationship of this European Standard with Regulation (EU)	
 No.305/2011	21
ZA.1 Scope and relevant characteristics	21
ZA.2 System of Assessment and Verification of Constancy of Performance (AVCP)	23
ZA.3 Assignment of AVCP tasks	23
Bibliography	25

European foreword

This document (EN 998-1:2016) has been prepared by Technical Committee CEN/TC 125 “Masonry”, the secretariat of which is held by BSI.

This document supersedes EN 998-1:2010.

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).

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) the order of 5.2 to 5.4 has been changed (fresh mortar before hardened mortar);
- c) revised clauses on Assessment and verification of constancy of performance (AVCP);
- d) new annex with indicative frequencies on testing for factory production control (informative);
- e) revised Annex ZA (informative);
- f) 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.

Introduction

The characteristics of rendering and plastering mortars depend essentially on the type or types of binders used and their respective proportions. Special properties can be achieved by the type of aggregates, admixtures and/or additions used.

Rendering/plastering mortars are defined:

- a) according to the concept as either:
 - 1) designed mortar; or
 - 2) prescribed mortar.
- b) according to the mode of manufacture as either:
 - 1) factory-made mortar;
 - 2) semi-finished factory mortar; or
 - 3) site-made mortar.
- c) according to the properties and/or use, as either:
 - 1) general purpose rendering/plastering mortars;
 - 2) lightweight rendering/plastering mortars;
 - 3) coloured rendering mortar;
 - 4) one-coat rendering mortar;
 - 5) renovation rendering/plastering mortars;
 - 6) thermal rendering/plastering insulating mortars.

Rendering/plastering mortars do not attain their final characteristics until properly hardened after application. The functions performed by a rendering/plastering mortar depend on the characteristics of the types of material used, on the thickness of the coats and the type of application. In addition, rendering/plastering mortars determine the surface of the construction.

Regional differences in construction practices and climate, and different constituents for rendering/plastering mortars do not allow for the establishment of standard mix proportions for prescribed mortar that would be applicable in all of Europe. Therefore, the specification of such mix proportions (recipes) and fields of application should be based on practice and experience available in the place of use.

1 Scope

This European Standard is applicable to factory-made rendering/plastering mortars based on inorganic binders for external (rendering) and internal (plastering) use on walls, ceilings, columns and partitions. It contains definitions and final performance requirements.

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.

It does not cover mortars where calcium sulphate binder is the principal active binding agent.

Calcium sulphate binder can be used as an additional binder together with air lime. If air lime is the principal active binding component, the rendering/plastering mortar is covered by this European Standard. If the calcium sulphate binder is the principal active binding component, the mortar is covered by EN 13279.

Special fire resistant- and acoustical mortars, mortars for structural repair and surface treatments of building elements such as materials for smoothing or trueing, paints, coatings, thin-layer organic renders/plasters and prefabricated units (e.g. plasterboards) are not dealt with in this European Standard.

This European Standard covers rendering/plastering mortars defined in Clause 3 with the exception of site-made rendering/plastering mortars. 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 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 1015-12, *Methods of test of mortar for masonry - Part 12: Determination of adhesive strength of hardened rendering and plastering mortars on substrates*

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 1015-19, *Methods of test for mortar for masonry - Part 19: Determination of water vapour permeability of hardened rendering and plastering mortars*