

Design, preparation and application of external rendering and internal plastering - External rendering

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13914-1:2005 sisaldab Euroopa standardi EN 13914-1:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 30.05.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13914-1:2005 consists of the English text of the European standard EN 13914-1:2005.</p> <p>This document is endorsed on 30.05.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This document specifies requirements and recommendations for the design, preparation and application of cement, lime or other mineral binders, and/or combinations thereof, masonry cement and polymer modified binder based external renderings, on all common types of backgrounds, to both vertical walls and horizontal soffits.</p>	<p>Scope:</p> <p>This document specifies requirements and recommendations for the design, preparation and application of cement, lime or other mineral binders, and/or combinations thereof, masonry cement and polymer modified binder based external renderings, on all common types of backgrounds, to both vertical walls and horizontal soffits.</p>
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English version

Design, preparation and application of external rendering and internal plastering - External rendering

Conception, préparation et mise en oeuvre des enduits
extérieurs et intérieurs - Partie 1: Enduits extérieurs

Planung, Zubereitung und Ausführung von Innen- und
Außenputzen - Teil 1: Außenputz

This European Standard was approved by CEN on 15 December 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 13914-1:2005) has been prepared by Technical Committee CEN/TC125 'Masonry', the Secretariat of which is held by BSI, following preparation by CEN/TC125/JWG5 - Joint Working Group with CEN/TC241 for codes of application for external rendering and internal plastering, in conjunction with CEN/TC241. The first draft was prepared by the European section of International Union of Contractors of Plastering, Dry Lining, Stucco and Related Activities (UIEP) at the request of the CEN Technical Sector Board (Resolution No. BTS1/56/1991).

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 September 2005, and conflicting national standards shall be withdrawn at the latest by September 2005.

This document gives requirements¹⁾ and recommendations for building details, design and materials considerations, the selection of mixes and the application of cement-based and lime-based renderings on external backgrounds.

NOTE (to English version only) The term 'rendering mortar' is used in the European Standard product specification EN 998-1, but to reflect common usage in relation to this document and for ease of reference the term 'render' (noun) has been used.

A rendered finish may be applied to a variety of backgrounds, either to improve resistance to rain penetration and weathering and/or for aesthetic reasons.

For the purposes of this document (except where stated in relation to a specific product standard) the term 'strength' should be considered in terms of relative strengths between different types of backgrounds compared with the nominal strengths of prescribed render mixes. Although it may be possible to consider this in terms of compressive strength, this standard deals with aspects of a craft as opposed to design calculations. Therefore 'strength' is not considered in terms of numerical values derived from test. Similar considerations also apply to terms such as 'movement', 'absorbency' and 'permeability' etc. used in this document.

This document refers only to the technical suitability of materials and/or procedures. The user will during the application need to observe any legal obligations relating to health and safety at any stage.

The values of certain parameters in this document may be set by CEN members so as to meet the requirements of national regulations. These parameters are designed by \square in the text.

Because this document is a code-like document as opposed to the more conventional EN product standard, it is appropriate to mention that, as with product standards, the use of the verbal form 'shall' denotes a requirement for which verification of compliance has to be able to be demonstrated. Recommendations are denoted by the verbal form 'should' and should be followed unless there is a justifiable reason for not doing so.

It is not the function of this standard to assign responsibility for the design and application of any work or actions mentioned within to any specific party. Such responsibility is a matter for other documentation associated with the work, e.g. the contract.

It has been assumed in the drafting of this document that the application of its provisions is entrusted to appropriately qualified and experienced people, for whose guidance it has been prepared.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

¹⁾ This document contains certain elements of specification and other requirements which are denoted by the use of the verbal form 'shall'.

1 Scope

This document specifies requirements and recommendations for the design, preparation and application of cement, lime or other mineral binders, and/or combinations thereof, masonry cement and polymer modified binder based external renderings, on all common types of backgrounds, to both vertical walls and horizontal soffits. It includes rendering on both new and old backgrounds and the maintenance and repair of existing work. Renders with organic materials as the principal binder are not included in the scope of this document.

This document gives guidance on the use of established site, factory and semi-finished factory made renders.

NOTE 1 Because of the many and varied materials and practices in Europe it is not possible for certain aspects of the document to enter into sufficient detail to be fully usable to practitioners in each country. Such recommendations required to complement, but not alter any basic European recommendation are given in documentation prepared by each country. Aspects of this document which may need to be complemented are indicated where they occur by a footnote referencing this paragraph. Due to the wide range of climatic conditions in Europe, it is not possible to recommend precise drying times for backgrounds and render coats. Any times given are for guidance only.

This document does not cover the following:

- a) the use and application of special renders for liquid retaining structures, e.g. coatings, and for backgrounds to cladding systems;
- b) the structural repair of concrete;
- c) the installation of proprietary external thermal insulation composite systems (ETICS);
- d) the specification and use of sealants used to seal joints for use with rendering;
- e) the use of gypsum based renders used externally, but their use may be permitted in some countries;

NOTE 2 Gypsum based products soften when subject to prolonged moist conditions. The use of such products externally will depend upon the climatic conditions where the render will be used and on the local building traditions. With the exception of some drier countries in southern Europe gypsum based renders are generally not recommended for external use and are therefore not included within the scope of this document. Their use may be permitted and controlled locally².

- f) the design and installation of flashings at windowsills and elsewhere.

At various points in this document reference is made to the use of sealants. The specification of sealants and the design of such joints is outside the scope of this document.

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 197-1, *Cement — Part 1: Composition, specifications and conformity criteria for common cements*

EN 413-1, *Masonry cement — Part 1: Composition, specifications and conformity criteria.*

EN 459-1, *Building lime — Part 1: Definitions, specifications and conformity criteria*

²⁾ Refer to NOTE 1 of Clause 1 for further information.

EN 771-1, *Specification for masonry units — Part 1: Clay masonry units*

EN 771-3, *Specification for masonry units — Part 3: Aggregate concrete masonry units (Dense and light-weight aggregates)*

EN 934-3, *Admixtures for concrete, mortar and grout — Part 3: Admixtures for masonry mortar — Definitions, requirements, conformity, marking and labelling*

EN 998-1, *Specification for mortar for masonry — Part 1: Rendering and plastering mortar*

EN 1008, *Mixing water for concrete — Specifications for sampling, testing and assessing the suitability of water, including water recovered from processes in the concrete industry, as mixing water for concrete*

EN 12878, *Pigments for the colouring of building materials based on cement and/or lime — Specifications and methods of test*

EN 13055 (all parts), *Lightweight aggregates*

EN 13139, *Aggregates for mortar*

prEN 13658-2, *Metal lath and beads — Definitions, requirements and test methods — Part 2: External rendering*

EN ISO 1461, *Hot dip galvanized coatings on fabricated iron and steel articles — Specifications and test methods (ISO 1461:1999)*

3 Terms and definitions

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

3.1

render (rendering mortar³⁾ (*noun*)

mixture of one or more inorganic binders, aggregates, water and sometimes admixtures and/or additions used as an external render

3.2

render (*verb*)

action of applying render

3.3

rendering

(i)(verb) application of render

(ii)(noun) render when on the background

3.4

factory made render

render batched and mixed in a factory. It may be 'dry render' which is ready mixed only requiring the addition of water and further mixing or 'wet render' which is supplied ready to use

3.5

wet retarded ready-to use render

wet factory made render (see 3.4) for which the set has been retarded

³⁾ NOTE (to English version only) The term 'rendering mortar' is used in the European Standard product specification

EN 998-1, but to reflect common usage in relation to this document and for ease of reference the term 'render' (noun) has been used.