

**KROHVIDE PROJEKTEERIMINE, VALMISTAMINE JA
PEALEKANDMINE. OSA 1: VÄLISKROHV**

**Design, preparation and application of external
rendering and internal plastering - Part 1: External
rendering**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN 13914-1:2016 sisaldab Euroopa standardi EN 13914-1:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 13914-1:2016 consists of the English text of the European standard EN 13914-1:2016.
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English Version

Design, preparation and application of external rendering and internal plastering - Part 1: External rendering

Conception, préparation et application des enduits
extérieurs et intérieurs - Partie 1: Enduits extérieurs

Planung, Zubereitung und Ausführung von Außen- und
Innenputzen - Teil 1: Außenputz

This European Standard was approved by CEN on 2 January 2016.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 13914-1:2016) has been prepared by Technical Committee CEN/TC 125 “Masonry”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by September 2016, and conflicting national standards shall be withdrawn at the latest by September 2016.

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.

This document supersedes EN 13914-1:2005.

The first draft of this document was prepared by the European Union of Contractors of Plastering, Dry Lining, Stucco and Related Activities (UEEP) at the request of the CEN Technical Sector Board (Resolution No. BTS1/56/1991).

This document gives requirements and recommendations for building details, design and materials considerations, the selection of mixes and the application of renders based on cement, lime or organic binders for use on external backgrounds.

NOTE 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 testing. 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. During the application the user will need to observe any legal obligations relating to health and safety at any stage.

Because this document is a code-like document as opposed to the more conventional European 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, 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.

1 Scope

This European Standard specifies requirements and recommendations for the design, preparation and application of

- renders based on cement, lime or other mineral binders, and/or combinations thereof, masonry cement and polymer modified binder based external renderings, in accordance with EN 998-1 or site made renders;
- renders based on organic binders in accordance with EN 15824

on all common types of backgrounds. It includes rendering on both new and old backgrounds and the maintenance and repair of existing work. This document gives guidance on the use of established site, factory and semi-finished factory made renders.

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 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;

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. However, their use may be permitted and controlled locally.¹⁾

- f) renders on historical monuments or buildings in protected areas which may be regulated by national codes;
- g) the design and installation of flashings at windowsills and elsewhere.

Because of the many and varied materials and practices and different climatic conditions in Europe it is not possible for certain aspects of the standard to enter into sufficient detail to be fully usable to practitioners in each country. Appropriate guidance to complement, but not alter any basic European recommendations is given in documentation prepared by each country. Aspects of this European Standard whose basic recommendations may need to be complemented are indicated where they occur by a footnote referencing this clause.

¹⁾ Refer to final paragraph of Clause 1 for further information.

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 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*

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

EN 998-1:2010, *Specification for mortar for masonry — Part 1: Rendering and plastering mortar*

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

EN 1996-2, *Eurocode 6 — Design of masonry structures — Part 2: Design considerations, selection of materials and execution of masonry*

EN 10088-1, *Stainless steels — Part 1: List of stainless steels*

EN 10346, *Continuously hot-dip coated steel flat products for cold forming — Technical delivery conditions*

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*

EN 13496, *Thermal insulation products for building applications — Determination of the mechanical properties of glass fibre meshes as reinforcement for External Thermal Insulation Composite Systems with renders (ETICS)*

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

EN 15824:2009, *Specifications for external renders and internal plasters based on organic binders*

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

EN ISO 16120-2, *Non-alloy steel wire rod for conversion to wire — Part 2: Specific requirements for general-purpose wire rod (ISO 16120-2)*