SLOVENSKI STANDARD
oSIST prEN 18136:2025

01-marec-2025

Mleti apnenec za beton - Definicija, specifikacije in merila skladnosti

Ground limestone for concrete - Definition, specifications and conformity criteria

Gemahlener Kalkstein für Beton - Definition, Anforderungen und Konformitätskriterien

Additions calcaires pour béton - Définition, spécifications et critères de conformité

Ta slovenski standard je istoveten z: **prEN 18136**

ICS:

01.040.91	Gradbeni materiali in gradnja (Slovarji)	Construction materials and building (Vocabularies)
91.100.10	Cement. Mavec. Apno. Malta	Cement. Gypsum. Lime. Mortar
91.100.30	Beton in betonski izdelki	Concrete and concrete products

oSIST prEN 18136:2025 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 18136

January 2025

ICS 91.100.30

English Version

Ground limestone for concrete - Definition, specifications and conformity criteria

Additions calcaires pour béton - Définition, spécifications et critères de conformité

Gemahlener Kalkstein für Beton - Definition, Anforderungen und Konformitätskriterien

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 104.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. prEN 18136:2025 E

Contents

Page

European foreword

This document (prEN 18136:2025) has been prepared by Technical Committee CEN/TC 104 “Concrete and related products”, the secretariat of which is held by SN.

This document is currently submitted to the CEN Enquiry.

Introduction

The purpose of this document is to specify the requirements for ground limestone for concrete. It is based on a survey that has been carried out in European countries already using ground limestone in concrete, which has enabled the identification of the common core group of characteristics and common values.

The ground limestone referred to in this document, is originated from the exploitation of carbonate rock-forming minerals (limestone, chalk, marble, dolostone).

Ground limestone is used in concrete production in some European countries, based on national experience and tradition.

When using ground limestone conforming to this document, consider that certain properties of fresh and hardened concrete can be influenced. Where relevant, such effects need to be considered in concrete mix design (see EN 206).

1 Scope

This document is applicable to ground limestone intended to be used as concrete addition, and for use in mortar and grouts.

The document specifies requirements for the chemical and physical properties as well as quality control procedures for ground limestone, for use as an addition for production of concrete conforming to EN 206.

This document does not specify provisions for the practical application of ground limestone in the production of concrete.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 196-1, *Methods of testing cement — Part 1: Determination of strength*

EN 196-2, *Method of testing cement — Part 2: Chemical analysis of cement*

EN 196-3, *Methods of testing cement — Part 3: Determination of setting times and soundness*

EN 196-6, *Methods of testing cement — Part 6: Determination of fineness*

EN 196-7, *Methods of testing cement — Part 7: Methods of taking and preparing samples of cement*

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

EN 933-9, *Tests for geometrical properties of aggregates — Part 9: Assessment of fines - Methylene blue test*

EN 933-10, *Tests for geometrical properties of aggregates — Part 10: Assessment of fines - Grading of filler aggregates (air jet sieving)*

EN 1097-5, *Tests for mechanical and physical properties of aggregates — Part 5: Determination of the water content by drying in a ventilated oven*

EN 1097-7, *Tests for mechanical and physical properties of aggregates — Part 7: Determination of the particle density of filler - Pyknometer method*

EN 1744-1, *Tests for chemical properties of aggregates — Part 1: Chemical analysis*

EN 13639, *Determination of total organic carbon in limestone*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

3.1
ground limestone
fine particles obtained by grinding and/or selection, dry or in aqueous suspension, from carbonate rocks

Note 1 to entry: Eg limestone, chalk, marble, dolostone.

3.2
addition
finely divided inorganic material used in concrete in order to improve certain properties or to achieve special properties

3.3
test cement
selected source of Portland cement according to 4.3.2.1 used for carrying out the tests needed to evaluate conformity to the requirements of 4.3.2.2, 4.3.2.3 and 4.3.2.4

3.4
activity index
percentage of the compressive strength of standard mortar bars, prepared with 75 % test cement plus 25 % ground limestone by mass, to the compressive strength of standard mortar bars prepared with 100 % test cement, when tested at the same age

3.5
autocontrol
continuous statistical quality control of the ground limestone based on the testing of samples taken by the producer or their agent at point(s) of release from the ground limestone producing facility

3.6
control period
period of production and/or dispatch identified for the evaluation of the autocontrol test results

3.7
characteristic value
value of the required property outside of which lies a specified percentage, the percentile Pk, of all the values of the population

3.8
single result limit value
limit value of a chemical or physical property which – for any single test result – in the case of an upper limit is not to be exceeded or in the case of a lower limit is, as a minimum, to be reached

3.9
allowable probability of acceptance CR
for a given sampling plan, the allowed probability of acceptance of ground limestone with a characteristic value outside the specified minimum or maximum values

3.10
sampling plan
specific plan which states the (statistical) sample size(s) to be used, the percentile Pk, and the allowable probability of acceptance CR

3.11
spot sample
sample taken at the same time and from one and the same place, relating to the intended tests which can be obtained by combining one or more immediately consecutive increments

Note 1 to Entry: See EN 196-7.

3.12
certificate of conformity of the factory production control
document issued under the rules of the scheme for the Assessment and Verification of Conformity indicating that adequate confidence is provided that factory production control is in conformity with the relevant product specification standard

3.13
existing factory
factory for which the conformity of the factory production control has already been certified using this European Standard

3.14
factory production control
documented, permanent and internal control of production in a factory

3.15
factory
facility used by a manufacturer for the production of ground limestone using equipment which is suitable for continuous mass production of Ground Limestone, in particular, equipment for adequate grinding and/or selection and the necessary silo capacity for the storage and dispatch of each ground limestone produced

Note 1 to entry: This equipment and the production control applied allow the control of production with sufficient accuracy to ensure that the requirements of this document are met

3.16
initial period
immediate period starting after the first issuing of the certificate of conformity of the factory production control for a ground limestone and at the latest from the first dispatching of ground limestone

3.17
new factory
factory for which the conformity of the factory production control has not been certified using this European Standard

3.18
certification body
third-party conformity assessment body operating certification schemes

3.19
works' quality documentation
documentation that provides information on the factory production control which is applied by a manufacturer at a particular factory to ensure constancy of performance of the ground limestone