



**SLOVENSKI STANDARD**  
**oSIST prEN 1018:2020**  
**01-maj-2020**

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**Kemikalije, ki se uporabljajo za pripravo pitne vode - Kalcijev karbonat**

Chemicals used for treatment of water intended for human consumption - Calcium carbonate

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Calciumcarbonat

**iTeh STANDARD PREVIEW**

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Produits chimiques utilisés pour le traitement de l'eau destinée à la consommation humaine - Carbonate de calcium

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**Ta slovenski standard je istoveten z: prEN 1018**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
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**prEN 1018**

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ICS

Will supersede EN 1018:2013+A1:2015

English Version

## Chemicals used for treatment of water intended for human consumption - Calcium carbonate

Produits chimiques utilisés pour le traitement de l'eau destinée à la consommation humaine - Carbonate de calcium

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Calciumcarbonat

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 164.

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.

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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.

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

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

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**prEN 1018:2020 (E)**

## **European foreword**

This document (prEN 1018:2020) has been prepared by Technical Committee CEN/TC 164 “Water supply”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 1018:2013+A1:2015.

In comparison with the previous edition, the following technical modifications have been made:

- modification of 7.3 on transportation regulations and labelling, adding the sentence “The user must be aware of the incompatibilities between transported products.”;
- modification of 7.4 on marking. The requirements of marking are also applied to the accompanying documents;
- changes in the requirements for the composition of the porous products (Table 1) and their impurities (Table 2).

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## Introduction

In respect of potential adverse effects on the quality of water intended for human consumption, caused by the product covered by this standard:

- 1) this standard provides no information as to whether the product may be used without restriction in any of the Member States of the EU or EFTA;
- 2) it should be noted that, while awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of this product remain in force.

NOTE Conformity with this document does not confer or imply acceptance or approval of the product in any of the Member States of the EU or EFTA. The use of the product covered by this document is subject to regulation or control by National Authorities.

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**prEN 1018:2020 (E)****1 Scope**

This document is applicable to calcium carbonate used for treatment of water intended for human consumption. It describes the characteristics of calcium carbonate and specifies the requirements and the corresponding test methods for calcium carbonate. It gives information on its use in water treatment.

**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 12485, *Chemicals used for treatment of water intended for human consumption - Calcium carbonate, high-calcium lime, half-burnt dolomite, magnesium oxide, calcium magnesium carbonate and dolomitic lime - Test methods*

ISO 3165, *Sampling of chemical products for industrial use — Safety in sampling*

ISO 6206, *Chemical products for industrial use — Sampling — Vocabulary*

ISO 9277, *Determination of the specific surface area of solids by gas adsorption — BET method*

**3 Terms and definitions**

No terms and definitions are listed in this document.

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

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

**4 Description****4.1 Identification****4.1.1 Chemical name**

Limestone.

Calcium carbonate.

**4.1.2 Synonym or common name**

Limestone.

Calcium carbonate.

**4.1.3 Relative molecular mass**

100,09.

**4.1.4 Empirical formula**

CaCO<sub>3</sub>.

**4.1.5 Chemical formula**

CaCO<sub>3</sub>.



#### 4.1.6 CAS-Registry Number <sup>1</sup>

1317-65-3 for limestone.

471-34-1 for calcium carbonate.

#### 4.1.7 EINECS reference <sup>2</sup>

215-279-6 for limestone.

207-439-9 for calcium carbonate.

### 4.2 Commercial form

Both types of calcium carbonate (limestone and chemically produced) are available in crushed and granular form of various particle size ranges, as a slurry and in a mixture of both substances. Annex A provides general information about calcium carbonate. To distinguish between non-porous and porous calcium carbonate, Annex B applies.

### 4.3 Physical properties

#### 4.3.1 Appearance

The product is a white or grey material in crushed and granular form.

#### 4.3.2 Density

The density of the product is equal to 2,71 g/cm<sup>3</sup> at 20 °C.

The bulk density of the product is between 1,0 g/cm<sup>3</sup> to 1,5 g/cm<sup>3</sup>.

#### 4.3.3 Solubility

The solubility of product is equal to 0,014 g/l at 10 °C.

#### 4.3.4 Vapour pressure

Not applicable.

#### 4.3.5 Boiling point at 100 kPa <sup>3</sup>

Not applicable.

#### 4.3.6 Melting point

Not applicable.

#### 4.3.7 Specific heat

Not known.

#### 4.3.8 Viscosity, dynamic

Not applicable.

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<sup>1</sup> Chemical Abstracts Service Registry Number.

<sup>2</sup> European Inventory of Existing Commercial Chemical Substances.

<sup>3</sup> 100 kPa = 1 bar.

## prEN 1018:2020 (E)

### 4.3.9 Critical temperature

Not applicable.

### 4.3.10 Critical pressure

Not applicable.

### 4.3.11 Physical hardness

Not relevant.

### 4.3.12 Particle size

It varies depending on the application (see A.2.3).

## 4.4 Chemical properties

Calcium carbonate reacts as an alkali when dissolved in water.

## 5 Purity criteria

### 5.1 General

This document specifies the minimum purity requirements for calcium carbonate used for the treatment of water intended for human consumption. Limits are given for impurities commonly present in the product. Depending on the raw material and the manufacturing process other impurities may be present and, if so, this shall be notified to the user and when necessary to relevant authorities.

Users of this product should check the national regulations in order to clarify whether it is of appropriate purity for treatment of water intended for human consumption, taking into account raw water quality, required dosage, contents of other impurities and additives used in the product not stated in this document.

Limits have been given for impurities and chemical parameters where these are likely to be present in significant quantities from the current production process and raw materials. If the production process or raw materials leads to significant quantities of impurities, by-products or additives being present, this shall be notified to the user.