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

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12485:2010 sisaldab Euroopa standardi EN 12485:2010 ingliskeelset teksti.	This Estonian standard EVS-EN 12485:2010 consists of the English text of the European standard EN 12485:2010.
Standard on kinnitatud Eesti Standardikeskuse 30.06.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 30.06.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
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Chemicals used for treatment of water intended for human consumption - Calcium carbonate, high-calcium lime, half-burnt dolomite, magnesium oxide and calcium magnesium carbonate - Test methods

Produits chimiques utilisés pour le traitement de l'eau destinée à la consommation humaine - Carbonate de calcium, chaux et dolomie semi calcinée - Méthodes d'analyse

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Calciumcarbonat, Weißkalk, halbgebrannter Dolomit, Magnesiumoxid und Calciummagnesiumcarbonat - Analytische Verfahren

This European Standard was approved by CEN on 18 March 2010.

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Foreword

This document (EN 12485:2010) has been prepared by Technical Committee CEN/TC 164 “Water supply”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by October 2010, and conflicting national standards shall be withdrawn at the latest by October 2010.

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 12485:2001.

Annexes A and B are informative.

Significant technical differences between this edition and EN 12485:2001 are as follows:

a) addition of a method for determination of sugar-soluble calcium oxide or calcium hydroxide (see 6.6);

b) addition of a method for determination of solubility index (see 6.11).

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies the methods used for the chemical analyses and the determination of physical properties of calcium carbonate, high-calcium lime, half-burnt dolomite, magnesium oxide and calcium magnesium carbonate used to treat water for human consumption.

This document describes the reference methods and, in certain cases, an alternative method which can be considered to be equivalent. In the case of a dispute, only the reference methods are used.

Any other methods may be used provided they are calibrated, either against the reference methods or against internationally accepted reference materials, in order to demonstrate their equivalence.

NOTE Schematic diagrams of the analyses are given in Annex A (Figures A.1 to A.6).

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 459-2, *Building lime — Part 2: Test methods*

EN 1017, *Chemicals used for treatment of water intended for human consumption — Half-burnt dolomite*

EN 1018, *Chemicals used for treatment of water intended for human consumption — Calcium carbonate*

EN 12518, *Chemicals used for treatment of water intended for human consumption — High-calcium lime*

prEN 16003, *Chemicals used for treatment of water intended for human consumption — Calcium magnesium carbonate*

prEN 16004, *Chemicals used for treatment of water intended for human consumption — Magnesium oxide*

EN ISO 3696:1995, *Water for analytical laboratory use — Specification and test methods (ISO 3696:1987)*

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

ISO 4793:1980, *Laboratory sintered (fritted) filters — Porosity grading, classification and designation*

3 General requirements

3.1 Number of determinations

Two analyses shall be carried out to determine the various constituents (see Clause 5 to Clause 8, see also 3.6).

3.2 Methods for analysis

The methods to be used for the analysis of half-burnt dolomite, calcium carbonate, high calcium lime, magnesium oxide and calcium magnesium carbonate and the principle of each method are listed in Table 1.

The requirement values for free MgO and free $Mg(OH)_2$ in half-burnt dolomite shall be expressed as free MgO in accordance with EN 1017. The same requirement is related to free CaO. The requirement value for MgO in magnesium oxide shall be expressed as MgO in dry substance in accordance with prEN 16004. Therefore,