

---

**Kemikalije, ki se uporabljajo za pripravo pitne vode – Bentonit**

Products used for treatment of water intended for human consumption - Bentonite

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Bentonit

Produits utilisés pour le traitement de l'eau destinée à la consommation humaine -  
Bentonite

iteh STANDARD PREVIEW  
(standards.iteh.ai)

**Ta slovenski standard je istoveten z: EN 13754:2003**

<https://standards.iteh.ai/catalog/standards/sist/412370af-c318-4f23-bef5-84639d3a5c8f/sist-en-13754-2003>

---

**ICS:**

|           |                             |                                     |
|-----------|-----------------------------|-------------------------------------|
| 13.060.20 | Pitna voda                  | Drinking water                      |
| 71.100.80 | Kemikalije za čiščenje vode | Chemicals for purification of water |

**SIST EN 13754:2003****en**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 13754:2003

<https://standards.iteh.ai/catalog/standards/sist/412370af-c318-4f23-bef5-84639d3a5c8f/sist-en-13754-2003>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 13754**

March 2003

ICS 71.100.80

English version

**Products used for treatment of water intended for human  
consumption - Bentonite**

Produits utilisés pour le traitement de l'eau destinée à la  
consommation humaine - Bentonite

Produkte zur Aufbereitung von Wasser für den  
menschlichen Gebrauch - Bentonit

This European Standard was approved by CEN on 19 August 2002.

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 Management Centre 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 Management Centre has the same status as the official versions.

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

SIST EN 13754:2003

<https://standards.iteh.ai/catalog/standards/sist/412370af-c318-4f23-be5f-84639d3a5c8f/sist-en-13754-2003>



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

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

## Contents

|  |    |
|--|----|
| Foreword .....   | 3  |
| 1 Scope .....  | 5  |
| 2 Normative references .....                                 | 5  |
| 3 Terms, definitions and symbols .....                       | 5  |
| 4 Description .....  | 5  |
| 5 Physical properties .....                                  | 6  |
| 6 Chemical properties .....                                  | 6  |
| 7 Test methods .....   | 7  |
| 8 Labelling, transportation and storage .....                | 7  |
| Annex A (informative) General information on bentonite ..... | 9  |
| Bibliography .....   | 11 |

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 13754:2003](https://standards.iteh.ai/catalog/standards/sist/412370af-c318-4f23-be5-84639d3a5c8f/sist-en-13754-2003)  
<https://standards.iteh.ai/catalog/standards/sist/412370af-c318-4f23-be5-84639d3a5c8f/sist-en-13754-2003>

## Foreword

This document (EN 13754:2003) 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 September 2003, and conflicting national standards shall be withdrawn at the latest by September 2003.

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

Annex A is informative.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 13754:2003](https://standards.iteh.ai/catalog/standards/sist/412370af-c318-4f23-be5-84639d3a5c8f/sist-en-13754-2003)

<https://standards.iteh.ai/catalog/standards/sist/412370af-c318-4f23-be5-84639d3a5c8f/sist-en-13754-2003>

## 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.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 13754:2003](https://standards.iteh.ai/catalog/standards/sist/412370af-c318-4f23-be5f-84639d3a5c8f/sist-en-13754-2003)

<https://standards.iteh.ai/catalog/standards/sist/412370af-c318-4f23-be5f-84639d3a5c8f/sist-en-13754-2003>

## 1 Scope

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

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 12901, *Products used for the treatment of water intended for human consumption - Inorganic supporting and filtering materials – Definitions.*

EN 12902, *Products used for the treatment of water intended for human consumption - Inorganic supporting and filtering materials - Methods of test.*

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

iTeh STANDARD PREVIEW

## 3 Terms, definitions and symbols (standards.iteh.ai)

For the purposes of this European Standard, the terms, definitions and symbols given in EN 12901 apply.

<https://standards.iteh.ai/catalog/standards/sist/412370af-c318-4f23-be5-84639d3a5c8f/sist-en-13754-2003>

## 4 Description

### 4.1 Identification

#### 4.1.1 Chemical name

Not applicable.

#### 4.1.2 Synonym or common names

Montmorillonite, Bentonite, Amargosite, Ardmorite, Askanite, Confolensite, Erinite, Galapectite, Malthacite, Samoïte, Steargilite, Stolpenite, Wilkonite.

Montmorillonite and bentonite are the most commonly used names.

#### 4.1.3 Chemical formula

$\text{Si}_4\text{Al}_{2-x}\text{M}_x^{2+}\text{M}_x^{+}\text{O}_{10}(\text{OH})_2 \cdot n\text{H}_2\text{O}$ , where  $x$  varies from 0 to 2.

The divalent metal  $\text{M}^{2+}$  can be replaced completely or partly by  $\text{M}^{+}$  so as to maintain electrical charge equilibrium.

6



NOTE 2 Water extractable substances, determined in accordance with the method for powders given in EN 12902, can be used to estimate the leaching of the chemical specified in EN 12902.

## 7 Test methods

### 7.1 Sampling

Prepare the laboratory sample(s) required by the relevant procedures described in EN 12902.

### 7.2 Analysis

#### 7.2.1 Particle size distribution

The particle size distribution shall be determined in accordance with EN 12902.

#### 7.2.2 Bulk density packed

The bulk density packed shall be determined in accordance with EN 12902.

#### 7.2.3 Chemical analysis

The content of  $\text{SiO}_2$  shall be determined in accordance with EN 12902.

The content of  $\text{Al}_2\text{O}_3$ ,  $\text{CaO}$ ,  $\text{Na}_2\text{O}$  and  $\text{MgO}$  shall be determined in accordance with EN 12485.

#### 7.2.4 Mass loss at 105 °C

The mass loss shall be determined by the method for water content, heating to 105 °C, in accordance with EN 12902.

## 8 Labelling, transportation and storage

### 8.1 Means of delivery

Bentonite shall be delivered in bags, big bags and bulk.

In order that the purity of the product is not affected, the means of delivery shall not have been used previously for any different product or it shall have been specially cleaned and prepared before use.

### 8.2 Risk and safety labelling according to EU directives <sup>3)</sup>

Bentonite is not listed as a dangerous substance.

### 8.3 Transportation regulations and labelling

Bentonite is not classified as dangerous for transportation by road, rail, sea or air. Bentonite is not listed under a UN number <sup>4)</sup>.

No special labelling is required.

---

<sup>3)</sup> See [2].

<sup>4)</sup> United Nations number.