

## **Väetised. Puistetiheduse määramine (vaba)**

Fertilizers - Determination of bulk density (loose)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1236:2000 sisaldab Euroopa standardi EN 1236:1995 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1236:2000 consists of the English text of the European standard EN 1236:1995.</p> <p>This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> See standard määrab kindlaks meetodi tahkete väetiste, v.a pulberväetiste (vaba) puistetiheduse määramiseks. Seda meetodit rakendatakse mittekleepuvate väetiste korral. Meetod ei sobi nende materjalide puhul, mis sisaldavad rohkem kui 20% (massiprotsent) osakesi diameetriga üle 5 mm.</p>	<p><b>Scope:</b></p>
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ICS 65.080

**Võtmesõnad:** katsed, määramine, puistetihedus, tiheduse määramine, väetised

ICS 65.080

Descriptors: Fertilizers, testing, density, bulk density.

**English version**

**Fertilizers**

Determination of bulk density (loose)  
(ISO 3944:1992, modified)

Engrais; détermination de la masse  
volumique sans tassement  
(ISO 3944:1992, modifiée)

Düngemittel; Bestimmung der Schütt-  
dichte (ISO 3944:1992, modifiziert)

This European Standard was approved by CEN on 1994-12-04.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

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## Foreword

The text of the International Standard from ISO/TC 134 "Fertilizers and soil conditioners" of the International Organization for Standardization (ISO) has been taken over as a European Standard by the Technical Committee CEN/TC 260 "Fertilizers and liming materials".

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 December 1995, and conflicting national standards shall be withdrawn at the latest by December 1995.

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

## Endorsement notice

The text of the International Standard ISO 3944:1992 was approved by CEN as a European Standard with agreed common modifications as given below :

- in clause 1 "Scope" of ISO 3944 the applicability is limited to dry fertilizers only. This requirement has been amended to free flowing fertilizers. Furthermore a limit for particles with more than 5 mm in diameter has been set at 20 % ;
- the bulk density (loose) is expressed in grams per cubic centimetre ( $\text{g/cm}^3$ ) in ISO 3944, in this European standard it is expressed in kilograms per cubic metres ( $\text{kg/m}^3$ ) ;
- the normative references to International Standards ISO 7742:1988 and ISO 8358:1991 concerning methods of sampling and sample preparation have been deleted and the method used has to be indicated in the test report ;
- an informative annex ZA "Bibliography" has been added.

The common modifications have been inserted in the text of the reference document and indicated by a vertical line in the left margin.

## Introduction

The bulk densities (loose and tapped) of a fertilizer provide information relative to the required size of packaging materials, store-houses, stock-rooms, etc. Generally, the bulk density (tapped) is up to 10 % greater than the bulk density (loose), and sometimes it may exceed this value. Both bulk densities depend on the actual density, surface form and particle size of the fertilizers.

The bulk density (loose) can be used to calculate the maximum volume of a given weight of fertilizer which may be expected in practice. The actual volume occupied by a given weight of fertilizer will normally be within the range calculated from the bulk density (loose) and the bulk density (tapped).