

Fertilizers - Determination of flow rate

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13299:2000 sisaldab Euroopa standardi EN 13299:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 08.08.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13299:2000 consists of the English text of the European standard EN 13299:2000.</p> <p>This document is endorsed on 08.08.2000 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>Käsitlusala: This European Standard specifies a method for determination of the flow rate of free flowing solid fertilizers. The method is not applicable to powder materials (<0,5 mm) or liming materials.</p>	<p>Scope: This European Standard specifies a method for determination of the flow rate of free flowing solid fertilizers. The method is not applicable to powder materials (<0,5 mm) or liming materials.</p>
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ICS 65.080

Võtmesõnad:

ICS 65.080

English version

Fertilizers

Determination of flow rate

Engrais – Détermination du taux
d'écoulement

Düngemittel – Bestimmung der
Fließkennzahl

This European Standard was approved by CEN on 1999-12-12.

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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.

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CEN

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

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 260 "Fertilizers and liming materials", 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of an identical text or by endorsement, at the latest by August 2000, and conflicting national standards shall be withdrawn at the latest by August 2000.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

The flow rate of a fertilizer provides a measure of comparison for the mass flow when flowing out of containers or during spreading.

1 Scope

This European Standard specifies a method for the determination of the flow rate of free flowing solid fertilizers. The method is not applicable to powder materials (< 0,5 mm) or liming materials.

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.

EN 1236, *Fertilizers - Determination of bulk density (loose) (ISO 3944:1992 modified)*.

ISO 3310-1, *Test sieves - Technical requirements and testing - Part 1 : Test sieves of metal wire cloth*.

3 Principle

Measurement of the time taken for 2 kg of fertilizer to flow from a calibrated funnel into a vessel placed on a balance.

4 Apparatus

4.1 **Balance**, with a capacity of at least 3,5 kg and capable of weighing to an accuracy of ± 1 g.

4.2 **Funnel**, as specified in EN 1236 made of stainless steel.

The slide of this funnel shall be such that the orifice is completely clear when the slide is in the open position.

4.3 **Collecting vessel**, capable of holding at least 3 kg of fertilizer, for example.

4.4 **Stop-watch**, with an accuracy of 0,1 s.

4.5 **Woven wire test sieves**, conforming to ISO 3310-1 with aperture sizes 3,55 mm and 4,0 mm.

4.6 **Glass balls**, for calibration of the funnel, conforming to the following requirements:

- Diameter : 4 mm \pm 0,3 mm ;
- Form : spherical ;
- Material : glass of density 2,5 kg/dm³ ;
- Surface : polished.

Before use, sieve the glass balls using the 4,00 mm and 3,55 mm sieves (4.5) and use only those which pass the 4,00 mm sieve and remain on the 3,55 mm sieve.