SLOVENSKI STANDARD
SIST-TS CEN/TS 17760:2023

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Anorganska gnojila - Določanje velikosti delcev gnojil iz amonijevega nitrata z veliko vsebnostjo dušika

Inorganic fertilizers - Determination of particle size of ammonium nitrate fertilizers of high nitrogen content

Anorganische Düngemittel - Bestimmung der Partikelgröße in Ammoniumnitratdüngemitteln mit hohem Stickstoffgehalt

Engrais inorganiques - Détermination de la taille des particules des engrais à base de nitrate d'ammonium et à forte teneur en azote

Ta slovenski standard je istoveten z: **CEN/TS 17760:2022**

ICS:

65.080	Gnojila	Fertilizers

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TECHNICAL SPECIFICATION

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CEN/TS 17760

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ICS 65.080

English Version

Inorganic fertilizers - Determination of particle size of ammonium nitrate fertilizers of high nitrogen content

Engrais inorganiques - Détermination de la taille des particules des engrais à base de nitrate d'ammonium et à forte teneur en azote

Anorganische Düngemittel - Bestimmung der Partikelgröße in Ammoniumnitratdüngemitteln mit hohem Stickstoffgehalt

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (CEN/TS 17760:2022) has been prepared by Technical Committee CEN/TC 260 “Fertilizers and liming materials”, the secretariat of which is held by DIN.

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1 Scope

This document specifies a method for the determination of particle size of ammonium nitrate fertilizers of high nitrogen content.

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 1482-2, *Fertilizers and liming materials — Sampling and sample preparation — Part 2: Sample preparation*

EN 12944-1, *Fertilizers and liming materials — Vocabulary — Part 1: General terms*

EN 12944-2, *Fertilizers and liming materials — Vocabulary — Part 2: Terms relating to fertilizers*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12944-1 and EN 12944-2 apply.

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

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

4 Principle

The test portion is sieved on a nest of three sieves, either by hand or by mechanical means. The mass retained on each sieve is recorded and the percentage of test portion passing the required sieves is calculated.

5 Apparatus and equipment

Usual laboratory equipment and, in particular, the following.

5.1 200-mm-diameter woven-wire test sieves, with apertures of 2,0 mm, 1,0 mm and 0,5 mm respectively of standard ranges. One lid and one receiver for these sieves.

5.2 Balance, capable of weighing to the nearest 0,1 g.

5.3 Mechanical sieve shaker, (if available) capable of imparting both vertical and horizontal motion to the test portion.

6 Sampling and sample preparation

Sampling is not part of the method specified in this document. A recommended sampling method is given in EN 1482-1.

Sample preparation shall be carried out in accordance with EN 1482-2.

7 Procedure

7.1 The sample is divided representatively into test portions of approximately 100 g.

7.2 Weigh one of these test portions to the nearest 0,1 g (5.2).

7.3 Arrange the nest of sieves (5.1) in ascending order; receiver, 0,5 mm, 1 mm, 2 mm and place the weighed test portion on the top sieve. Fit the lid to the top of the nest of sieves.

7.4 Shake by hand or machine (5.3), imparting both a vertical and horizontal motion and if by hand, tapping occasionally. Continue this process for 10 minutes or until the quantity passing through each sieve in one minute is less than 0,1 g.

7.5 Remove the sieves from the nest in turn and collect the material retained, brush gently from the reverse side with a soft brush, if necessary.

7.6 Weigh the material retained on each sieve and that collected in the receiver, to the nearest 0,1 g (5.2).

8 Evaluation of the results

8.1 Convert the fractions retained on each sieve to a percentage of the total of the fraction masses (not of the initial mass taken):

Calculate the percentage in the receiver (i.e. < 0,5 mm): A %

Calculate the percentage retained on the 0,5 mm sieve: B %

Calculate the percentage passing 1,0 mm, i.e. (A + B) %

The sum of the fractions shall be within 2 % of the initial mass taken.

8.2 At least two separate analyses shall be carried out and the individual results for A shall not differ by more than 1,0 % absolute and for B by more than 1,5 % absolute. Repeat the test if this is not the case.

9 Expression of the results

Report the mean of the two values obtained for A on the one hand and for A + B on the other.

10 Test report

The test report shall contain at least the following information:

a) all information necessary for the complete identification of the sample;

b) test method used with reference to this document, CEN/TS 17760:2022;

c) test results obtained expressed as described in Clause 9;

d) date of sampling and sampling procedure (if known);

e) date when the analysis was finished;

f) all operating details not specified in this document, or regarded as optional, together with details of any incidents that occurred when performing the method which might have influenced the test result(s).