



**SLOVENSKI STANDARD**  
**kSIST-TS FprCEN/TS 17760:2021**

**01-december-2021**

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**[Not translated]**

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

Anorganische Düngemittel - Bestimmung der Partikelgröße in Ammoniumnitratdüngemitteln mit hohem Stickstoffgehalt

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**Ta slovenski standard je istoveten z: FprCEN/TS 17760**

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**ICS:**

65.080                      Gnojila                                      Fertilizers

**kSIST-TS FprCEN/TS 17760:2021                      en,fr,de**

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TECHNICAL SPECIFICATION  
SPÉCIFICATION TECHNIQUE  
TECHNISCHE SPEZIFIKATION

**FINAL DRAFT**  
**FprCEN/TS 17760**

November 2021

ICS 65.080

English Version

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

Anorganische Düngemittel - Bestimmung der  
Partikelgröße in Ammoniumnitratdüngemitteln mit  
hohem Stickstoffgehalt

This draft Technical Specification is submitted to CEN members for Vote. It has been drawn up by the Technical Committee CEN/TC 260.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

**Warning** : This document is not a Technical Specification. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a Technical Specification.



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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (FprCEN/TS 17760:2021) has been prepared by Technical Committee CEN/TC 260 “Fertilizers and liming materials”, the secretariat of which is held by DIN.

This document is currently submitted to the Vote on TS.

This document has been prepared under a standardization request given to CEN by the European Commission and the European Free Trade Association.

**WARNING**— The use of this document can involve hazardous materials, operations and equipment. This document does not purport to address all the safety problems associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

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## FprCEN/TS 17760:2021 (E)

### 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 and soil improvers - Vocabulary - Part 1: General terms*

EN 12944-2, *Fertilizers and liming materials and soil improvers - 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 <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

### 4 Principle

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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, FprCEN/TS 00260261:2021;
- 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).