

STN	Vápenaté hnojivá. Stanovenie neutralizačnej hodnoty. Titračná metóda.	STN EN 12945+A1 65 4872
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Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/17

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Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12945:2014+A1

October 2016

ICS 65.080

Supersedes EN 12945:2014

English Version

**Liming materials - Determination of neutralizing value -
Titrimetric methods**

Amendements minéraux basiques - Détermination de
la valeur neutralisante - Méthode par titrimétrie

Kalkdünger - Bestimmung des Neutralisationswertes -
Titrimetrische Verfahren

This European Standard was approved by CEN on 8 February 2014 and includes Amendment 1 approved by CEN on 11 June 2016.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

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European foreword

This document (EN 12945:2014+A1:2016) has been prepared by Technical Committee CEN/TC 260 “Fertilizers and liming materials”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by April 2017 and conflicting national standards shall be withdrawn at the latest by April 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1 approved by CEN on 11 June 2016.

This document supersedes A1 EN 12945:2014 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

The following changes A1 had been made to the former edition EN 12945:2008 A1:

- a) scope modified taking into account that method A is not applicable to liming materials with more than 3 % P₂O₅ and that method B is applicable to all liming materials;
- b) reference to EN 14984 added to the scope and the Bibliography;
- c) 9.2 amended by addition of an instruction concerning the use of correction factors;
- d) optional requirement concerning correction factors added to Clause 11 Test report;
- e) corrigendum EN 12945:2008/AC:2009 included;
- f) editorially revised.

A1 The following changes were made to the previous edition EN 12945:2014:

- g) Clause 9 modified taking into account that the neutralizing value may be expressed as CaO-equivalents or alternatively as HO--equivalents;
- h) Annex B with conversion factors between CaO and HO- added;
- i) Bibliography revised;
- j) document editorially revised. A1

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Two different procedures are described (method A and method B) because the titration to pH 7,0 is not applicable to silicate liming materials due to the precipitation of compounds at this pH value.

In method B the turning point at pH 4,8 on the titration curve is taken as the end-point of the titration. For carbonaceous liming materials the difference in the consumption of sodium hydroxide solution for back titration between the titration end-points of pH 4,8 and pH 7,0 is negligible.

1 Scope

This European Standard specifies two methods for the determination of the neutralizing value (NV) of liming materials.

Method A is applicable to all liming materials except silicate liming materials.

Method B is applicable to all liming materials.

Both methods do not correctly take into account the potential neutralizing value of material containing more than 3 % P_2O_5 . For a more accurate agronomic assessment of products containing more than 3 % P_2O_5 determine the liming efficiency according to EN 14984.

NOTE The methods described in ISO 6598 [1] and ISO 7497 [2] can be used for the determination of P_2O_5 content. Further information on P analyses is given in [3] and [4].

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 12944-3:2001, *Fertilizers and liming materials — Vocabulary — Part 3: Terms relating to liming materials*

EN ISO 3696, *Water for analytical laboratory use — Specification and test methods (ISO 3696)*

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

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