



BSI Standards Publication

Liming material — Determination of neutralizing value — Titrimetric methods

National foreword

This British Standard is the UK implementation of [ISO 20978:2020](#).

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A list of organizations represented on this committee can be obtained on request to its secretary.

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Liming material — Determination of neutralizing value — Titrimetric methods

*Amendements minéraux basiques — Détermination de la valeur
neutralisante — Méthodes par titrimétrie*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 134, *Fertilizers and soil conditioners*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This method has been developed to assess the ability of a product to deliver potential neutralization capacity, i.e. to neutralize protons or acidic cations in soils and consequently maintain or increase its pH. It relies on the measurement of hydrochloric acid consumption when a liming material is mixed in solution with hydrochloric acid in excess.

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.

This document derives from the European standard EN 12945:2014+A1. However, its principle is the same as in AOAC 955.01 and BNQ 0419-070: 2011.

The following changes have been made to the EN 12945:2014+A1 edition:

- expression of results is allowed as CaCO_3 equivalent, not only as CaO or HO^- equivalents;
- [Annex B](#) has been completed accordingly to present all the necessary conversion tables;
- a new ISO international ring test was performed in 2017 to determine precision data (see [Clause 10](#))
- [Annex A](#) was revised accordingly.

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