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NSAI Standards

Irish Standard
I.S. EN 13639:2017

Determination of total organic carbon in limestone

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I.S. EN 13639:2017

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NSAI 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie

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National Foreword

I.S. EN 13639:2017 is the adopted Irish version of the European Document EN 13639:2017, Determination of total organic carbon in limestone

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13639

September 2017

ICS 91.100.10

Supersedes EN 13639:2002

English Version

Determination of total organic carbon in limestone

Determination du carbone organique total dans le calcaire

Bestimmung des Gesamtgehalts an organischem Kohlenstoff in Kalkstein

This European Standard was approved by CEN on 26 June 2017.

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Contents

Page

European foreword ... 4

1 Scope ... 5

2 Normative references ... 5

3 General requirements for testing ... 5
3.1 Number of tests ... 5
3.2 General statistical terms ... 5
3.3 Expression of masses and results ... 6
3.4 Blank determinations ... 6
3.5 Sampling and sampling preparation ... 6
3.6 General test principles ... 6

4 Reagents ... 7

5 General apparatus ... 9
5.1 Balances ... 9
5.2 Laboratory ovens ... 9
5.3 Crucibles ... 10

6 Gravimetric method with wet oxidation (reference method) ... 10
6.1 Principle ... 10
6.2 Apparatus ... 10
6.3 Procedure ... 11
6.4 Calculation ... 12

7 Gravimetric method with furnace oxidation (alternative method No. 1) ... 12
7.1 Principle ... 12
7.2 Apparatus ... 12
7.3 Procedure ... 14
7.4 Calculation ... 14

8 Infrared detection method with furnace oxidation (low temperature) (alternative method No. 2) ... 15
8.1 Principle ... 15
8.2 Apparatus ... 15
8.3 Procedure ... 17
8.4 Calculation ... 18

9 Infrared detection or conductivity methods with furnace oxidation (high temperature): procedure A (alternative method No. 3) ... 19
9.1 Principle ... 19
9.2 Apparatus ... 19
9.3 Procedure ... 20

10 Infrared detection or conductivity methods with furnace oxidation (high temperature): procedure B (alternative method No. 4) ... 21
10.1 Principle ... 21
10.2 Apparatus ... 21
10.3 Procedure ... 21

This is a free page sample. Access the full version online.

11 Repeatability and reproducibility standard deviation, determination limit 22

12 Test report 22

Annex A (informative) Features of commercial HF (High Frequency) combustion/infrared carbon analyzers 23

A.1 Combustion 23

A.2 Infrared gas analyser 24

Annex B (informative) Assignment of reagents to methods 25

Bibliography 27

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European foreword

This document (EN 13639:2017) has been prepared by Technical Committee CEN/TC 51 "Cement and building limes", the secretariat of which is held by NBN.

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 March 2018, and conflicting national standards shall be withdrawn at the latest by March 2018.

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

This document supersedes EN 13639:2002.

In comparison to EN 13639:2002, the following change has been made:

In Clause 10 a new alternative method, *Alternative method No. 4*, developed in Sweden, has been included.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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1 Scope

This European Standard specifies methods for the determination of the total organic carbon content (TOC) in limestone.

NOTE This method covers the determination of TOC in < 1 %.

The standard describes the reference method and alternative methods that can be considered to be equivalent.

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.

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

ISO 11464, *Soil quality — Pretreatment of samples for physico-chemical analysis*

3 General requirements for testing

3.1 Number of tests

Where the analysis is one of the series subject to statistical control, determination of the total organic carbon content by a single test shall be the minimum required.

Where the analysis is not part of a series subject to statistical control, the number of tests for determination of the total organic carbon content shall be two (see also 3.3).

In case of dispute, only the reference method is used.

In case of dispute, the number of tests for determination of the total organic carbon content shall be two (see also 3.3).

Any other method may be used provided it is calibrated, either against the reference method or against internationally accepted reference materials, in order to demonstrate its equivalence.

3.2 General statistical terms

Repeatability standard deviation - the standard deviation of test results obtained under repeatability conditions where independent test results are obtained with the same method on identical material tested in the same laboratory by the same operator using the same equipment within short intervals of time.

Reproducibility standard deviation - the standard deviation of test results obtained under reproducibility conditions where test results are obtained with the same method on identical material tested in different laboratories with different operators using different equipment.

NOTE Definitions are based on ISO 3534-1 [1].

The standard deviations of repeatability and reproducibility are expressed in absolute percent.

Determination limit (Formula (1)) - is the content where its relative uncertainty, which is assigned to a fixed probability level, and defined as the quotient of the half of a two-side prognosis interval and the content to be assigned to the determination limit, is equal to a pre-set value.

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