DIN EN 13639:2017-12 (E)

Determination of total organic carbon in limestone

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

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