DIN EN 459-1:2010-12 (E)

Building lime - Part 1: Definitions, specifications and conformity criteria

Contents

Page

Foreword 4

Introduction 5

1 Scope 6

2 Normative references 6

3 Terms and definitions 6

4 Air lime 8
4.1 General 8
4.2 Sub-families of air lime 8
4.2.1 Calcium lime (CL) 8
4.2.2 Dolomitic lime (DL) 8
4.3 Forms of air lime 8
4.3.1 Quicklime (Q) 8
4.3.2 Hydrated lime (S, S PL or S ML) 8
4.4 Calcium lime 9
4.4.1 Classification of calcium lime 9
4.4.2 Chemical requirements for calcium lime 9
4.4.3 Physical requirements and other physical properties for quicklime 10
4.4.4 Physical requirements and other physical properties for hydrated lime and lime putty 10
4.4.5 Additional properties 11
4.4.6 Durability requirements 11
4.4.7 Conformity criteria of calcium lime 11
4.4.8 Standard designation of calcium lime 14
4.5 Dolomitic lime 14
4.5.1 Classification of dolomitic lime 14
4.5.2 Chemical requirements for dolomitic lime 14
4.5.3 Physical requirements and other physical properties for dolomitic quicklime 15
4.5.4 Physical requirements and other physical properties for dolomitic hydrated lime 16
4.5.5 Additional properties 16
4.5.6 Durability requirements 16
4.5.7 Conformity criteria of dolomitic lime 17
4.5.8 Standard designation of dolomitic lime 18

5 Lime with hydraulic properties 19
5.1 General 19
5.2 Sub-families of lime with hydraulic properties 19
5.2.1 Natural hydraulic lime (NHL) 19
5.2.2 Formulated lime (FL) 19
5.2.3 Hydraulic lime (HL) 19
5.3 Natural hydraulic lime 20
5.3.1 Classification of natural hydraulic lime 20
5.3.2 Chemical requirements for natural hydraulic lime 20
5.3.3 Physical requirements and other physical properties for natural hydraulic lime 20
5.3.4 Additional properties 21
5.3.5 Durability requirements 21
5.4 Formulated lime 21
5.4.1 Classification of formulated lime 21
5.4.2 Composition of formulated lime 22

5.4.4 Physical requirements and other physical properties for formulated lime 23
5.4.5 Additional properties 24
5.4.6 Durability requirements 24
5.5 Hydraulic lime 24
5.5.1 Classification of hydraulic lime 24
5.5.2 Chemical requirements for hydraulic lime 24
5.5.3 Physical requirements and other physical properties for hydraulic lime 25
5.5.4 Additional properties 26
5.5.5 Durability requirements 26
5.6 Conformity criteria of natural hydraulic lime, formulated lime and hydraulic lime 26
5.6.1 General requirements 26
5.6.2 Conformity requirements 26
5.7 Standard designation of lime with hydraulic properties 28
5.7.1 Standard designation of natural hydraulic lime 28
5.7.2 Standard designation of formulated lime 28
5.7.3 Standard designation of hydraulic lime 28

Annex A (normative) Statistical evaluation methods for strength, physical and chemical properties 29

Annex B (informative) Additional properties for building lime 35

Annex C (informative) Schematic diagram for the types of lime and fields of application 37

Annex D (normative) Declaration of composition for formulated lime 38

Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Product Directive 40

Bibliography 48