DIN EN 771-1:2011-07 (E)

Specification for masonry units - Part 1: Clay masonry units

Contents

Page

Foreword 4

1 Scope 5

2 Normative references 5

3 Terms and definitions 6

4 Materials and manufacture 9

5 Requirements for clay masonry units 9
5.1 General 9
5.2 LD units 10
5.2.1 Dimensions and tolerances (LD units) 10
5.2.2 Configuration (LD units) 12
5.2.3 Density (LD units) 14
5.2.4 Compressive strength (LD units) 14
5.2.5 Thermal properties (LD units) 15
5.2.6 Durability (LD units) 15
5.2.7 Water absorption (LD units) 15
5.2.8 Active soluble salts content (LD units) 15
5.2.9 Moisture movement (LD units) 16
5.2.10 Reaction to fire (LD units) 16
5.2.11 Water vapour permeability (LD units) 16
5.2.12 Bond strength (LD units) 16
5.3 HD units 17
5.3.1 Dimensions and tolerances (HD units) 17
5.3.2 Configuration (HD units) 18
5.3.3 Density (HD units) 19
5.3.4 Compressive strength (HD units) 20
5.3.5 Thermal properties (HD units) 21
5.3.6 Durability (HD units) 21
5.3.7 Water absorption (HD units) 21
5.3.8 Initial rate of water absorption (HD units) 21
5.3.9 Active soluble salts content (HD units) 22
5.3.10 Moisture movement (HD units) 22
5.3.11 Reaction to fire (HD units) 22
5.3.12 Water vapour permeability (HD units) 22
5.3.13 Bond strength (HD units) 23

6 Description, designation and classification of clay masonry units 23
6.1 Description and designation 23
6.1.1 LD units 23
6.1.2 HD units 24
6.2 Classification 24

7 Marking 25

8 Evaluation of conformity 25
8.1 General 25
8.2 Initial type testing 25
8.3 Factory production control 26

8.3.1 General ... 26
8.3.2 Testing and measuring equipment ... 27
8.3.3 Production equipment ... 27
8.3.4 Raw materials ... 27
8.3.5 Production process ... 27
8.3.6 Finished product testing ... 27
8.3.7 Statistical techniques ... 27
8.3.8 Marking and stock control of products ... 27
8.3.9 Traceability ... 28
8.3.10 Nonconforming products ... 28

Annex A (normative) Sampling for initial type testing and for independent testing of consignments 29

A.1 General ... 29
A.2 Sampling procedure ... 29
A.2.1 General ... 29
A.2.2 Random sampling ... 29
A.2.3 Representative sampling ... 29
A.2.4 Dividing the sample ... 30
A.2.5 Number of units required for testing ... 30

Annex B (informative) Additional information ... 33

B.1 Use of clay masonry units ... 33
B.2 Durability ... 34
B.3 Freeze/thaw resistance ... 34
B.3.1 General ... 34
B.3.2 Masonry subjected to severe exposure ... 34
B.3.3 Masonry subjected to moderate exposure ... 35
B.3.4 Masonry subjected to passive exposure ... 35
B.4 Sulfate action on mortars and plasters ... 35
B.5 Efflorescence and staining ... 36
B.6 General guidance on the appearance of facing clay masonry units ... 36

Annex C (informative) Guidelines for test frequencies for designing a FPC system to demonstrate conformity of finished products with the requirements of the standard and the declaration of the manufacturer ... 37

Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive ... 39

ZA.1 Scope and relevant characteristics ... 39

ZA.2 Procedure(s) for attestation of conformity of clay masonry units ... 42

ZA.2.1 System(s) of attestation of conformity ... 42

ZA.2.2 EC Certificate and Declaration of Conformity ... 43

ZA.3 CE marking and labelling ... 44

Bibliography ... 49