DIN EN 771-3:2011-07 (E)

Specification for masonry units - Part 3: Aggregate concrete masonry units (Dense and lightweight aggregates)

Contents

Page

Foreword 4

1 Scope 5

2 Normative references 5

3 Terms, definitions and symbols 6
3.1 Terms and definitions 6
3.2 Symbols 8

4 Materials 8

5 Requirements for aggregate concrete masonry units 9
5.1 General 9
5.2 Dimensions and tolerances 9
5.2.1 Dimensions 9
5.2.2 Dimensional tolerances 10
5.3 Configuration and appearance 10
5.3.1 Configuration 10
5.3.2 Appearance 11
5.4 Density 11
5.4.1 Gross dry density of the units 11
5.4.2 Net dry density of the concrete 12
5.4.3 Tolerances 12
5.5 Mechanical strength 12
5.5.1 Compressive strength 12
5.5.2 Bending tensile strength 13
5.6 Thermal properties 13
5.7 Durability 13
5.8 Water absorption by capillarity 13
5.9 Moisture movement 14
5.10 Water vapour permeability 14
5.11 Reaction to fire 14
5.12 Shear bond strength 14
5.12.1 General 14
5.12.2 Declaration based on fixed values 14
5.12.3 Declaration based on tests 15
5.13 Flexural bond strength 15

6 Description, designation and classification of aggregate concrete masonry units 15
6.1 Description and designation of units 15
6.2 Classification 16

7 Marking 16

8 Evaluation of conformity 16
8.1 General 16
8.2 Initial type testing 16
8.3 Factory production control 17
8.3.1 General 17
8.3.2 Testing and measuring equipment 18

8.3.3 Production equipment 18
8.3.4 Raw materials 18
8.3.5 Production process 18
8.3.6 Finished product testing 18
8.3.7 Statistical techniques 19
8.3.8 Marking and stock control of products 19
8.3.9 Traceability 19
8.3.10 Nonconforming products 19

Annex A (normative) Sampling for initial type testing and for independent testing of consignments 20

A.1 General 20
A.2 Sampling procedure 20
A.2.1 General 20
A.2.2 Random sampling 20
A.2.3 Representative sampling 20
A.2.4 Dividing the sample 21
A.2.5 Number of units required for testing 21
A.3 Place and dates of inspection and testing 22

Annex B (normative) Compliance criteria for initial type testing and for independent testing of consignments 23

B.1 Dimensions and tolerances (see 5.2) 23
B.2 Configuration and appearance (see 5.3) 23
B.3 Density (see 5.4) 23
B.4 Mechanical strength (see 5.5) 23
B.4.1 Characteristic strength 23
B.4.2 Mean strength 23
B.5 Moisture movement and water absorption by capillarity (see 5.9 and 5.8) 23

Annex C (informative) Examples of different shapes of aggregate concrete masonry units 27

Annex D (informative) Guidance 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 28

Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive 30

ZA.1 Scope and relevant characteristics 30

ZA.2 Procedure(s) for attestation of conformity of aggregate concrete masonry units 32

ZA.2.1 System(s) of attestation of conformity 32

ZA.2.2 EC Certificate and Declaration of Conformity 33

ZA.3 CE marking and labelling 34

Bibliography 38