

DIN EN 492:2016-12 (E)

Fibre-cement slates and fittings - Product specification and test methods (includes Amendment :2016)

Contents		Page
European foreword		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	6
4	Symbols and abbreviations	7
5	Product requirements	8
5.1	General	8
5.1.1	Composition	8
5.1.2	Appearance and finish	8
5.2	Dimensions and tolerance	8
5.2.1	General	8
5.2.2	Thicknesses	8
5.2.3	Tolerances on nominal dimensions	9
5.3	Physical requirements and characteristics for fibre-cement slates	9
5.3.1	General	9
5.3.2	Apparent density	9
5.3.3	Mechanical characteristics	9
5.3.4	Water impermeability	10
5.4	Durability requirements	10
5.4.1	General	10
5.4.2	Freeze-thaw	10
5.4.3	Heat-rain	10
5.4.4	Warm water	10
5.4.5	Soak-dry	10
5.5	Fire and safety	10
5.5.1	External fire performance	10
5.5.2	Reaction to fire	10
5.5.3	Release of dangerous substances	10
5.6	Product information	11
6	Assessment and verification of constancy of performance -- AVCP	11
6.1	General	11
6.2	Type testing	11
6.2.1	General	11
6.2.2	Test samples, testing and compliance criteria	12
6.2.3	Test reports	12
6.3	Factory production control (FPC)	12
6.3.1	General	12
6.3.2	Requirements	13
6.3.3	Product specific requirements	16
6.3.4	Initial inspection of factory and of FPC	16
6.3.5	Continuous surveillance of FPC	17
6.3.6	Procedure for modifications	17
6.4	Inspection of a consignment of finished products"	17
7	Test methods	17

7.1	General	17
7.2	Dimensional tests	17
7.2.1	Preparation of specimen	17
7.2.2	Apparatus	18
7.2.3	Procedure	18
7.2.4	Expression and interpretation of results	18
7.3	Tests for physical performance and characteristics	18
7.3.1	Apparent density	18
7.3.2	Mechanical characteristics: Breaking load test	19
7.3.3	Water impermeability	21
7.3.4	Warm water	21
7.3.5	Soak-dry	22
7.4	Tests for climatic performance	23
7.4.1	Freeze-thaw	23
7.4.2	Heat-rain	25
7.5	Test for fire performance	26
7.5.1	Test for external fire performance	26
7.5.2	Test for reaction to fire	26
8	Marking, labelling and packaging	34
Annex A (normative) Consignment inspection sampling		35
Annex B (normative) Statistical method for determining the corresponding wet values or revised dry specifications for the bending moment when carrying out the dry method of test for quality control purposes		36
B.1	Procedure	36
B.2	Determination of the correlation between the results of testing wet and dry specimens ...	36
B.3	Determination of the regression line	37
B.4	Determination of a value for wet testing from an obtained value for dry testing	37
B.5	Determination of the minimum value specified for dry testing x_{std} corresponding to the minimum value specified for wet testing in this standard y_{std}	38
Annex C (informative) Examples		40
C.1	Examples of dimension h	40
C.2	Examples of fibre-cement slates installed showing lines of fixing	42
Annex D (normative) Requirements of Decision 2001/671/EC regarding the external fire performance of roof coverings expressed following the classes defined in EN 13501- 5 ...		43
Annex ZA (informative) !Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation		45
ZA.1	Scope and relevant characteristics	45
ZA.2	Procedure for AVCP of fibre-cement slates and fittings	47
ZA.2.1	Systems of AVCP	47
ZA.2.2	Declaration of performance (DoP)	51
ZA.3	CE marking and labelling"	55
Bibliography		58