

DIN EN 12859:2011-05 (E)

Gypsum blocks - Definitions, requirements and test methods

Contents	Page
Foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms, definitions and symbols	7
3.1 Terms and definitions	7
3.2 Symbols	9
4 Requirements	10
4.1 Fire behaviour	10
4.1.1 Reaction to fire	10
4.1.2 Fire resistance	10
4.2 Direct airborne sound insulation	10
4.3 Thermal properties	10
4.3.1 Thermal resistance	10
4.3.2 Thermal conductivity	10
4.4 Types of gypsum blocks	11
4.4.1 General	11
4.4.2 Visual identification of gypsum blocks by pigmentation	11
4.5 Release of dangerous substances	12
4.6 Dimensions and tolerances	12
4.6.1 Dimensions	12
4.6.2 Tolerances	12
4.7 Flatness of gypsum blocks	13
4.8 Dry density and tolerance	13
4.8.1 Classes of density	13
4.8.2 Tolerance	13
4.9 Surface mass of gypsum blocks and tolerance	13
4.10 Bending strength	13
4.11 Moisture content	14
4.12 pH	15
4.13 Water absorption capacity	15
4.13.1 Classification	15
4.13.2 Requirement	15
4.14 Surface hardness	15
5 Test methods	15
5.1 Sampling	15
5.2 Preparation of test pieces	15
5.3 Measurement of dimensions	16
5.3.1 Thickness	16
5.3.2 Length	16
5.3.3 Height	18
5.3.4 Cavity gypsum blocks	18
5.4 Flatness of gypsum blocks	19
5.4.1 Principle	19
5.4.2 Apparatus	19
5.4.3 Procedure	19

5.4.4	Expression of results	19
5.5	Mass of gypsum blocks	19
5.5.1	Principle	19
5.5.2	Apparatus	19
5.5.3	Procedure	19
5.5.4	Expression of results	19
5.6	Density of gypsum blocks	19
5.6.1	Principle	19
5.6.2	Apparatus	19
5.6.3	Procedure	20
5.6.4	Expression of results	20
5.7	Bending strength	20
5.7.1	Principle	20
5.7.2	Apparatus	20
5.7.3	Procedure	21
5.7.4	Expression of results	21
5.8	Moisture content	21
5.8.1	Principle	21
5.8.2	Expression of results	21
5.9	Water absorption capacity (hydrophobic gypsum blocks only)	22
5.9.1	Principle	22
5.9.2	Apparatus	22
5.9.3	Preparation of the test pieces	22
5.9.4	Procedure	22
5.9.5	Expression of results	22
5.10	pH measurement	22
5.10.1	Principle	22
5.10.2	Apparatus	22
5.10.3	Sampling	23
5.10.4	Procedure	23
5.10.5	Expression of results	23
5.11	Test reports	23
6	Evaluation of conformity	23
6.1	General	23
6.2	Initial type testing	23
6.3	Factory production control	24
7	Designation of gypsum blocks	24
8	Marking, labelling and packaging	25
Annex A (normative) Sampling for independent acceptance testing carried out by a third party		26
A.1	General	26
A.2	Sampling procedure	26
Annex B (informative) Surface hardness		28
B.1	General	28
B.2	Requirements	28
B.3	Test method	28
Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive		30
Z.A.1 Scope and relevant characteristics		30
Z.A.2 Procedure for attestation of conformity of gypsum blocks		31
Z.A.3 CE Marking and labelling		32
Bibliography		35