

DIN EN 15501:2016-03 (E)

Thermal insulation products for building equipment and industrial installations -
Factory made expanded perlite (EP) and exfoliated vermiculite (EV) products -
Specification

Contents

	Page
European foreword	4
1 Scope	6
2 Normative references	6
3 Terms, definitions, symbols, units and abbreviated terms	8
3.1 Terms and definitions	8
3.1.1 Terms and definitions as given in EN ISO 9229:2007	8
3.1.2 Additional terms and definitions	9
3.2 Symbols, units and abbreviated terms	9
3.2.1 Symbols and units	9
3.2.2 Abbreviated terms	10
4 Requirements	11
4.1 General	11
4.2 For all applications	11
4.2.1 Thermal conductivity	11
4.2.2 Dimensions and tolerances	11
4.2.3 Dimensional stability	12
4.2.4 Reaction to fire	12
4.2.5 Durability characteristics	13
4.3 For specific applications	13
4.3.1 General	13
4.3.2 Maximum service temperature	13
4.3.3 Minimum service temperature	14
4.3.4 Compressive stress or compressive strength	14
4.3.5 Trace quantities of water soluble ions and the pH value	14
4.3.6 Water vapour diffusion resistance	15
4.3.7 Short-term water absorption by partial immersion	15
4.3.8 Release of dangerous substances	15
4.3.9 Continuous glowing combustion	15
5 Test methods	15
5.1 Sampling	15
5.2 Conditioning	16
5.3 Testing	16
5.3.1 General	16
5.3.2 Thermal conductivity	18
5.3.3 Maximum service temperature	18
5.3.4 Reaction to fire	19
6 Designation code	19
7 Assessment and Verification of the Constancy of Performance (AVCP)	19
7.1 General	19
7.2 Product Type Determination (PTD)	20
7.3 Factory Production Control (FPC)	20

8	Marking and labelling	20
	Annex A (normative) Factory production control	21
	EN 15501:2015 (E) Annex B (normative) Special conditions for the determination of organic content	23
B.1	Principle	23
B.2	Apparatus	23
B.3	Procedure	23
B.4	Calculation and expression of results	23
B.5	Test report	23
	Annex C (informative) Preparation of the test specimens to measure thermal conductivity	24
C.1	Preparation of the test specimens to measure thermal conductivity	24
C.2	Ageing	24
	Annex D (informative) Product specific details for mounting and fixing for reaction to fire testing ..	25
	Annex E (informative) Additional properties	30
E.1	General	30
E.2	Coefficient of thermal expansion	30
E.3	Apparent and true porosity	30
E.4	Air flow resistance	30
E.5	Creep in compression	30
E.6	Permeability to gases	30
E.7	Bending strength	30
E.8	Apparent density	30
	Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation	32
Z.A.1	Scope and relevant characteristics	32
Z.A.2	Procedures for AVCP of factory made expanded perlite (EP) and exfoliated vermiculite (EV) products	34
Z.A.3	CE Marking and labelling	41
	Bibliography	43