

DIN EN 14308:2016-03 (E)

Thermal insulation products for building equipment and industrial installations - Factory made rigid polyurethane foam (PUR) and polyisocyanurate foam (PIR) 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	8
3.2	Symbols, units and abbreviated terms	9
3.2.1	Symbols and units used in this standard	9
3.2.2	Abbreviated terms used in this standard	11
4	Requirements	11
4.1	General	11
4.2	For all applications	11
4.2.1	Thermal resistance and thermal conductivity	11
4.2.2	Dimensions and tolerances	12
4.2.3	Dimensional stability under specified conditions	13
4.2.4	Reaction to fire of the product as placed on the market	13
4.2.5	Durability characteristics	13
4.3	For specific applications	14
4.3.1	General	14
4.3.2	Maximum service temperature	14
4.3.3	Minimum service temperature	14
4.3.4	Compression resistance properties	15
4.3.5	Water vapour diffusion resistance	16
4.3.6	Water absorption	16
4.3.7	Closed cell content	16
4.3.8	Trace quantities of water soluble ions and the pH-value	16
4.3.9	Release of dangerous substances	16
4.3.10	Continuous glowing combustion	17
5	Test methods	17
5.1	Sampling	17
5.2	Conditioning	17
5.3	Testing	17
5.3.1	General	17
5.3.2	Thermal conductivity	19
5.3.3	Reaction to Fire	20
6	Designation code	20
7	Assessment and Verification of the Constancy of Performance (AVCP)	21
7.1	General	21
7.2	Product Type Determination (PTD)	21
7.3	Factory Production Control (FPC)	21

8	Marking and labelling	21
	Annex A (normative) Factory production control	23
	Annex B (normative) Determination of minimum service temperature	26
B.1	Definitions	26
B.2	Principle	26
B.3	Apparatus	26
B.4	Test specimens	27
B.5	Procedure	27
B.6	Calculation and expression of results	28
B.7	Accuracy of measurements	28
B.8	Test report	29
B.9	Modifications of and additions to the general test method for polyurethane and polyisocyanurate foam	30
	Annex C (normative) Determination of the aged value of thermal conductivity and thermal resistance	32
C.1	General	32
C.2	Sampling and test specimen preparation	32
C.3	Determination of the initial value of thermal conductivity	33
C.4	Fixed increments procedure	34
C.5	Determination of the accelerated aged value of thermal conductivity	36
C.6	Declaration of the aged value of thermal resistance and thermal conductivity	38
	Annex D (informative) Additional properties	40
D.1	General	40
D.2	Coefficient of thermal expansion	40
D.3	Water vapour transmission of preformed pipe insulation	40
D.4	Tensile strength perpendicular to faces	40
D.5	Shear strength	40
D.6	Bending strength	40
D.7	Cell gas composition	40
D.8	Cryogenic application	41
D.9	Density	41
	Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation	42
	ZA.1 Scope and relevant characteristics	42
	ZA.2 Procedures for AVCP of factory made rigid polyurethane foam (PUR) and polyisocyanurate foam (PIR) products	44
	ZA.3 CE Marking and labelling	51
	Bibliography	53