

# DIN EN 13166:2013-03 (E)

## Thermal insulation products for buildings - Factory made phenolic foam (PF) products - Specification

---

<b>Contents</b>		<b>Page</b>
Foreword .....		4
1	Scope .....	6
2	Normative references .....	6
3	Terms, definitions, symbols, units and abbreviated terms .....	7
4	Requirements .....	10
5	Test methods .....	17
6	Designation code .....	20
7	Evaluation of conformity .....	21
8	Marking and labelling .....	21
Annex A (normative)	Determination of the declared values of thermal resistance and thermal conductivity .....	23
Annex B (normative)	Initial type testing (ITT) and factory production control (FPC) .....	25
Annex C (normative)	Determination of the aged values of thermal resistance and thermal conductivity .....	29
Annex D (informative)	Additional properties .....	34
Annex E (normative)	PF multi-layered thermal insulation products .....	35
Annex ZA (informative)	Clauses of this European Standard addressing the provisions of the EU Construction Products Directive .....	37
Bibliography .....		45
Tables	Table 1 -- Tolerances for length and width .....	12
	Table 2 -- Classes for thickness tolerances .....	12
	Table 3 -- Tolerances for deviation from flatness .....	13
	Table 4 -- Dimensional stability under specified temperature and humidity conditions .....	14
	Table 5 -- Levels for compressive strength .....	14
	Table 7 -- Levels for short term water absorption by partial immersion .....	16
	Table 8 -- Levels for long term water absorption by partial immersion .....	16
	Table 9 -- Test methods, specimens and conditions .....	19

<b>Table A.1 -- Values for k for one side 90 % tolerance interval with a confidence level of 90 % .....</b>	<b>24</b>
<b>Table B.1 -- Minimum number of tests for ITT and minimum product testing frequencies .....</b>	<b>25</b>
<b>Table B.2 -- Minimum product testing frequencies for the reaction to fire characteristics .....</b>	<b>27</b>
<b>Table C.1 -- Test times for product thicknesses .....</b>	<b>31</b>
<b>Table C.2 -- Increments to be added to accelerated aged values of thermal conductivity to obtain the time averaged value over 25 years .....</b>	<b>32</b>
<b>Table D.1 -- Test methods, test specimens, conditions and minimum testing frequencies .....</b>	<b>34</b>
<b>Table ZA.1 -- Relevant clauses for factory made phenolic foam products and intended use .....</b>	<b>38</b>
<b>Table ZA.2 -- Systems of attestation of conformity .....</b>	<b>39</b>
<b>Table ZA.3.1 -- Assignment of evaluation of conformity tasks for products under system 1 for reaction to fire and system 3 for other characteristics .....</b>	<b>40</b>
<b>Table ZA.3.2 -- Assignment of evaluation of conformity tasks for products under system 3 or system 3 combined with system 4 for reaction to fire .....</b>	<b>41</b>
<b>Figures Figure ZA.1 -- Example CE marking information .....</b>	<b>44</b>