

DIN EN 12101-1:2006-06 (E)

Smoke and heat control systems - Part 1: Specification for smoke barriers

Contents		Page
0	Introduction	6
0.1	General	6
0.2	Function of smoke barriers	6
0.3	Applications of smoke barriers	7
0.4	Types of smoke barrier	7
1	Scope	8
2	Normative references	8
3	Terms, definitions and symbols	8
3.1	General terms and definitions	8
3.2	Symbols	10
4	Product requirements	11
4.1	General	11
4.2	Barrier types	11
4.3	Auxiliary power supply	12
4.4	Smoke (fire effluent) leakage	12
4.5	Reliability	13
4.6	Response time	13
5	Performance requirements and classifications	13
5.1	General	13
5.2	Temperature/time classification	13
5.3	Reliability and durability of smoke barriers	14
5.4	Response time of active smoke barriers	14
5.5	Smoke leakage (containment efficiency)	15
6	Evaluation of conformity	22
6.1	General	22
6.2	Initial type testing	23
6.3	Factory product control (FPC)	24
7	Installation	26
8	Maintenance	27
9	Marking and labelling	27
Annex A (normative) General testing requirements		29
A.1	Principle	29
A.2	Test sequence for initial type testing	29
A.3	Test report	29
Annex B (normative) Reliability and response time tests		31
B.1	Test method for the reliability and the response time of the product and the durability of materials	31
B.2	Test specimen	31
B.3	Procedure	31

B.4	Test report	32
Annex C (normative) Permeability of materials to smoke		33
C.1	Materials: Impermeable	33
C.2	Materials: Permeable (permitting limited passage of smoke)	33
C.3	Test procedure	33
C.4	Test report	33
Annex D (normative) Temperature/time resistance tests		34
D.1	Test equipment	34
D.2	Test specimen requirements	34
D.3	Installation of test specimen into the support frame	36
D.4	Test procedure	37
D.5	Measurements and observations	38
D.6	Test report	39
Annex E (informative) Deflection of smoke barriers		40
E.1	General	40
E.2	Principle	42
E.3	Barriers not reaching the floor	44
E.4	Barriers closing an opening	45
E.5	Smoke leakage through gaps in barriers	46
Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive		47
ZA.0	Scope of this annex	47
ZA.1	Relationship between EU Directive and this European Standard	47
ZA.2	Procedure for the attestation of conformity of smoke barriers	48
ZA.3	CE marking	48
ZA.4	Certificate and declaration of conformity	49
Bibliography		51