

ISO 1716:2002-02 (E)

Reaction to fire tests for building products - Determination of the heat of combustion

Contents		Page
Foreword		vi
Introduction		vii
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Test apparatus	2
4.1	General	2
4.2	Calorimetric bomb	3
4.3	Calorimeter	3
4.3.1	Jacket	3
4.3.2	Calorimetric vessel	3
4.3.3	Stirrer	3
4.4	Temperature measuring device	3
4.5	The crucible	4
4.6	Timing device	4
4.7	Electric power source	4
4.8	Pressure gauge and needle-valve	4
4.9	Balances	4
4.10	Device for making the "cigarette"	4
4.11	Device for making the pellet	4
4.12	Reagents	4
5	Test specimen	5
5.1	General	5
5.2	Sampling	5
5.2.1	General	5
5.2.2	Loose-fill material	5
5.2.3	Liquid applied products	5
5.3	Determination of surface density	5
5.4	Grinding	5
5.5	Type of specimen	6
5.6	Number of test specimens	6
5.7	Determination of mass	6
5.8	Crucible method	6
	Cigarette" method	6
6	Conditioning	7
7	Test procedure	7
7.1	General	7
7.2	Calibration procedure	7
7.2.1	Determination of the water equivalent	7
7.2.2	Conditions for re-calibration	8
7.3	Standard test procedure	8
8	Expression of results	9

8.1	Corrections for manual apparatus	9
8.2	Corrections for isothermal calorimeter (see annex C)	9
8.3	Calculation of the gross heat of combustion of the specimen	9
8.4	Calculation of the gross heat of combustion of the product	10
8.4.1	General	10
8.4.2	Homogeneous product	11
8.4.3	Non-homogeneous product	11
9	Test report	11
10	Validity of test results	12
Annex A (normative) Calculation of net heat of combustion		17
Annex B (informative) Precision of test method		18
Annex C (informative) Calculation by graph of the corrective term "c" necessary because of the cooling of the calorimeter		21
Annex D (informative) Example of determination of the gross heat of combustion of a non-homogeneous product		22
D.1	Non-homogeneous product to be tested	22
D.2	Sampling of the non-homogeneous product	22
D.2.1	Delamination of the product	22
D.2.2	Determination of the area weight of each component	23
D.3	Determination of the gross heat of combustion of each component	23