

# ISO 9705-1:2016-02 (E)

## Reaction to fire tests - Room corner test for wall and ceiling lining products - Part 1: Test method for a small room configuration

---

<b>Contents</b>		<b>Page</b>
Foreword .....		v
Introduction .....		vi
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	1
4	Principle .....	2
5	Fire test room .....	2
5.1	Dimensions .....	2
5.2	Doorway .....	3
5.3	Construction material .....	3
6	Ignition source .....	3
6.1	General .....	3
6.2	Location .....	4
6.3	Gas .....	4
6.4	Heat output .....	4
7	Hood and exhaust duct .....	4
8	Instrumentation in the exhaust duct .....	4
8.1	General .....	4
8.2	Volume flow rate .....	4
8.3	Gas analysis .....	5
8.3.1	Sampling line .....	5
8.3.2	Oxygen .....	5
8.3.3	Carbon dioxide .....	5
8.4	Optical density .....	5
8.4.1	General .....	5
8.4.2	Lamp .....	5
8.4.3	Lenses .....	5
8.4.4	Aperture .....	5
8.4.5	Detector .....	5
8.4.6	Location .....	6
9	System performance .....	6
9.1	System response .....	6
9.1.1	Procedure .....	6
9.1.2	Delay times .....	7
9.1.3	Response times .....	7
9.1.4	Calculations .....	7
9.2	Daily Check .....	7
9.3	Precision .....	8
9.4	Methanol calibration .....	8
9.4.1	Frequency of calibration .....	8
9.4.2	Container .....	8

9.4.3	Methanol .....	8
9.4.4	Procedure for methanol calibration .....	8
9.4.5	Requirements for methanol calibration .....	9
10	Preparation of test specimens .....	9
10.1	Specimen configuration .....	9
10.2	Boards .....	9
10.3	Mounting .....	9
10.4	Substrates .....	9
10.5	Paints and varnishes .....	9
10.6	Conditioning .....	10
11	Testing .....	10
11.1	Initial conditions .....	10
11.1.1	Ambient temperature .....	10
11.1.2	Ambient wind speed .....	10
11.1.3	Burner .....	10
11.1.4	Photographs .....	10
11.2	Procedure .....	10
11.2.1	Automated recording of data .....	10
11.2.2	Adjustment of burner and exhaust flow .....	11
11.2.3	Photographs .....	11
11.2.4	Observations .....	11
11.2.5	Termination of test .....	11
11.2.6	Damage of tested sample .....	11
11.2.7	Unusual behaviour .....	11
11.2.8	Additional measurements .....	12
12	Test report .....	12
Annex A (normative) Ignition source .....		14
Annex B (informative) Instrumentation of test room .....		17
Annex C (informative) Design of exhaust system .....		21
Annex D (informative) Instrumentation in exhaust duct .....		24
Annex E (normative) Calculation .....		31
Annex F (informative) Specimen configurations .....		39
Annex G (informative) Precision .....		40
Annex H (informative) Laser smoke photometer .....		41
Bibliography .....		42