ISO 24473:2008-04 (E)

Fire tests - Open calorimetry - Measurement of the rate of production of heat and combustion products for fires of up to 40 MW

Contents

Page

1 Scope 1

2 Normative references 1

3 Terms and definitions 2

4 Principle 2

5 Hood and exhaust duct 3
5.1 Requirements of the hood/duct and extraction system 3
5.2 Laboratory requirements 3

6 Instrumentation of the exhaust duct 3
6.1 General 3
6.2 Volume flow rate 3
6.3 Gas temperature 4
6.4 Gas analysis 4
6.5 Optical density 5

7 Additional equipment and procedures 5
7.1 Weigh platform 5
7.2 Heat flux measurements 5
7.3 Data recorder 6
7.4 Timing device 6

8 Heat and smoke release measurement 6

9 Experimental arrangements 6

10 Ignition sources 6
10.1 General 6
10.2 Calibration of gas burners 7
11 System performance 7
11.1 HRR measurement confirmation 7
11.2 System response 8
11.3 Precision 8
12 Reliability of data 8
13 Preparation of test specimens 8
14 Testing 9
14.1 Initial conditions 9
14.2 Procedure 9
15 Test report 10

Annex A (informative) Design of the hood and exhaust system 11

Annex B (informative) Instrumentation of the exhaust duct 16

Annex C (informative) Procedure for checking the stability of the oxygen analyser 18

Annex D (informative) Light measuring systems 19

Annex E (informative) Calculations 21

Annex F (informative) Ignition sources 25

Annex G (normative) Specific procedure for testing upholstered furniture 27

Annex H (informative) Repeatability and reproducibility 29

Bibliography 30