DIN EN 1366-12:2020-01 (E)

Fire resistance tests for service installations - Part 12: Non -mechanical fire barrier for ventilation ductwork (includes Amendment A1:2019)

Contents

Page

Foreword 4

Introduction 6

1 Scope 7

2 Normative references 7

3 Terms and definitions 7

4 Test equipment 8
4.1 General 8
4.2 Connecting duct 8
4.3 Volume flow measuring station 8
4.4 Condensing unit 9
4.5 Gas temperature measuring devices 9
4.6 Exhaust fan system 9

5 Test conditions 9

6 Test specimen 9
6.1 Size 9
6.2 Number of tests 9
6.2.1 General 9
6.2.2 Supporting construction 10
6.2.3 Method of installation in the supporting construction 10
6.2.4 Method of installation on to the supporting construction 10
6.2.5 Method of installation away from the supporting construction 10
6.3 Design 11
6.3.1 General 11
6.3.2 Orientation to be tested 11
6.3.3 Non-mechanical fire barriers installed within a wall or floor opening 11
6.3.4 Non-mechanical fire barriers mounted on to the face of a wall or floor 11
6.3.5 Non-mechanical fire barriers mounted remote from a wall or floor 11

7 Installation of test specimen 12
7.1 General 12
7.2 Supporting construction 12
7.3 Minimum separation 12

8 Conditioning 13
8.1 General 13
8.2 Water-based sealing materials 13

9 Application of instrumentation 13
9.1 Thermocouples 13
9.1.1 Furnace thermocouples (plate thermometers) 13
9.1.2 Unexposed surface temperature 13
9.2 Furnace pressure 13
9.2.1 General 13
9.2.2 Pressure differential measurement, furnace and connecting duct 13

10 Test procedure 14
10.1 Determination of leakage of connecting duct and measuring station 14
10.2 Fire test procedure 14

11 Performance criteria 15

12 Test report 16

13 Field of direct application of test results 17
13.1 Size of non-mechanical fire barrier 17
13.2 Non-mechanical fire barriers installed within structural openings 17
13.3 Non-mechanical fire barriers installed onto the face of a wall or a floor 17
13.4 Non-mechanical fire barriers remote from a wall or floor 17
13.5 Fire from above 18
13.6 Separation between non-mechanical fire barriers and between non-mechanical fire barriers and construction elements 18
13.7 Supporting constructions 18

Annex A (normative) EOTA TR026 - Characterization, Aspects of Durability and Factory Production Control for Reactive Materials, Components and Products 31

Bibliography 32