

DIN EN 1366-2:2015-09 (E)

Fire resistance tests for service installations - Part 2: Fire dampers

| 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 | 9 |
| 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 | 10 |
| 6.1 | Size | 10 |
| 6.2 | Number of tests | 10 |
| 6.2.1 | General | 10 |
| 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 | 11 |
| 6.2.5 | Method of installation away from the supporting construction | 11 |
| 6.2.6 | Blade pivot axis | 11 |
| 6.2.7 | Application with no ducting on one or both sides, where additional evidence of insulation in such applications is required | 11 |
| 6.3 | Design | 11 |
| 6.3.1 | General | 11 |
| 6.3.2 | Orientation to be tested | 12 |
| 6.3.3 | Fire dampers installed within a wall or floor opening | 12 |
| 6.3.4 | Fire dampers mounted on to the face of a wall or floor | 12 |
| 6.3.5 | Fire dampers mounted remote from a wall or floor | 12 |
| 6.3.6 | Application with no ducting on one or both sides, where additional evidence of insulation in such applications is required | 12 |
| 6.3.7 | Temperature sensing element | 13 |
| 7 | Installation of test specimen | 13 |
| 7.1 | General | 13 |
| 7.2 | Supporting construction | 13 |
| 7.3 | Minimum separation | 14 |
| 8 | Conditioning | 14 |
| 8.1 | General | 14 |
| 8.2 | Water-based sealing materials | 14 |
| 9 | Application of instrumentation | 14 |
| 9.1 | Thermocouples | 14 |

| | | |
|-------|--|----|
| 9.1.1 | Furnace thermocouples (plate thermometers) | 14 |
| 9.1.2 | Unexposed surface temperature | 14 |
| 9.2 | Furnace pressure | 15 |
| 9.2.1 | General | 15 |
| 9.2.2 | Pressure differential measurement, furnace and connecting duct | 15 |
| 10 | Test procedure | 15 |
| 10.1 | Determination of leakage of connecting duct and measuring station | 15 |
| 10.2 | Opening and closing test | 15 |
| 10.3 | Determination of leakage at ambient temperature | 16 |
| 10.4 | Fire test procedure | 16 |
| 11 | Performance criteria | 17 |
| 12 | Test report | 18 |
| 13 | Field of direct application of test results | 19 |
| 13.1 | Size of fire damper | 19 |
| 13.2 | Fire dampers installed within structural openings | 19 |
| 13.3 | Fire dampers installed onto the face of a wall or a floor | 19 |
| 13.4 | Fire dampers remote from a wall or floor | 19 |
| 13.5 | Fire from above | 20 |
| 13.6 | Separation between fire dampers and between fire dampers and construction elements . | 20 |
| 13.7 | Supporting constructions | 20 |
| 13.8 | Blade pivot axis | 20 |
| | Bibliography | 34 |