DIN EN 15650:2010-09 (E)

Ventilation for buildings - Fire dampers

Contents

Page

Foreword 4

Introduction 5

1 Scope 6

2 Normative references 6

3 Terms and definitions 6

4 Fire damper requirements 8
4.1 General 8
4.1.1 Fire resistance 8
4.1.2 General application 8
4.2 Construction and components: characteristics 8
4.2.1 Construction and operation 8
4.2.2 Protection against corrosion 9
4.2.3 Actuators 9
4.3 Fire resistance performance criteria 9
4.3.1 Fire dampers: integrity, insulation, leakage, operational reliability 9
4.3.2 Fire resistance classification and designation 10
4.3.3 Durability 10
4.3.4 Other performance criteria 11

5 Test methods 11
5.1 Ambient Leakage Tests 11
5.2 Fire resistance test 11
5.2.1 General 11
5.2.2 Fire damper: integrity and insulation 11
5.2.3 Leakage rated fire damper 12
5.2.4 Response delay of a fire damper 12
5.2.5 Sensing element: response temperature and load bearing capacity 12
5.3 Salt Spray Exposure Test 12
5.4 Cycling Tests 12
5.4.1 Pre-fire test cycling 12
5.4.2 Damper durability cycling 12
5.5 Damper Aerodynamic Performance 12

6 Evaluation of conformity 13
6.1 General 13
6.2 Initial type testing 13
6.2.1 General 13
6.2.2 Modifications 14
6.2.3 Previous tests and product families 14
6.2.4 Test samples 15
6.2.5 Test report 15
6.3 Factory Product Control (FPC) 15
6.3.1 General 15
6.3.2 General requirements 15
6.3.3 FPC specific requirements 16
6.3.4 Initial inspection of factory and FPC 18
6.3.5 Continuous surveillance of FPC 18

6.3.6 Procedure for modifications 18
6.4 One-off fire dampers, pre-production fire dampers (e.g. prototypes) and fire dampers produced in very low quantities 18

7 Marking and documentation 19

8 Product, installation and maintenance information (documentation) 20
8.1 Product specification 20
8.2 Installation information 20
8.3 Maintenance information 20

Annex A (informative) Typical fire damper descriptions 21

Annex B (normative) Salt spray exposure test 22

Annex C (normative) Cycling Tests 23

Annex D (informative) Example of inspection and maintenance procedure 25

Annex E (normative) Factory Production Control - TEST PLAN 26

Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive (Construction products Directive 89/106/EEC) 27

Bibliography 33