# DIN EN ISO 16890-3:2017-08 (E)

## Air filters for general ventilation - Part 3: Determina tion of the gravimetric efficiency and the air flow resistance versus the mass of test dust captured (ISO 16890-3:2016)

## Contents

Page


**European foreword** ... **3**

**Foreword** ... **4**

**Introduction** ... **5**

**1 Scope** ... **7**

**2 Normative references** ... **7**

**3 Terms and definitions** ... **7**
3.1 Air flow and resistance ... 8
3.2 Test device ... 8
3.3 Gravimetric efficiency ... 9
3.4 Other terms ... 10

**4 Symbols and abbreviated terms** ... **10**

**5 General test device requirements** ... **11**
5.1 Test device requirements ... 11
5.2 Test device preparation ... 11

**6 Loading dust** ... **12**

**7 Test equipment** ... **12**

**8 Qualification of test rig and apparatus** ... **15**
8.1 Schedule of qualification testing requirements ... 15
8.2 Dust feeder air flow rate ... 15
8.3 Final filter efficiency qualification test ... 16

**9 Test sequence dust-loading procedure** ... **16**
9.1 Test procedure for the filter ... 16
9.1.1 Preparation of the test device ... 16
9.1.2 Initial resistance to air flow ... 16
9.2 Dust loading ... 16
9.2.1 Dust loading procedure ... 16
9.2.2 Arrestance ... 17
9.2.3 Test dust capacity ... 18

**10 Reporting results** ... **18**
10.1 General ... 18
10.2 Required reporting elements ... 18
10.2.1 Report values ... 18
10.2.2 Report summary ... 18
10.2.3 Report details ... 20

**Annex A** (informative) **Resistance to air flow calculation** ... **25**

**Bibliography** ... **27**