

ISO 16890-3:2024-08 (E)

Air filters for general ventilation - Part 3: Determination of the gravimetric efficiency and the air flow resistance versus the mass of test dust captured

Contents

Page

- Foreword.....iv
- Introduction.....v
- 1 Scope.....1
- 2 Normative references.....1
- 3 Terms and definitions.....1
 - 3.1 Air flow and resistance.....2
 - 3.2 Test device.....2
 - 3.3 Gravimetric efficiency.....3
- 4 Symbols.....4
- 5 General test device requirements.....5
 - 5.1 Test device requirements.....5
 - 5.2 Test device preparation.....5
- 6 Loading dust.....5
- 7 Test equipment.....5
 - 7.1 Test rig.....5
 - 7.2 Upstream mixing orifice.....5
 - 7.3 Liquid aerosol testing devices.....6
 - 7.4 Dust feeder.....6
 - 7.5 Final filter.....10
- 8 Qualification of test rig and apparatus.....11
 - 8.1 Schedule of qualification testing requirements.....11
 - 8.2 Dust feeder air flow rate.....11
 - 8.3 Final filter efficiency qualification test.....12
- 9 Test sequence dust-loading procedure.....12
 - 9.1 Test procedure for the filter.....12
 - 9.1.1 Preparation of the test device.....12
 - 9.1.2 Initial resistance to air flow.....12
 - 9.2 Dust loading.....13
 - 9.2.1 Dust loading procedure.....13
 - 9.2.2 Arrestance.....13
 - 9.2.3 Test dust capacity.....14
- 10 Reporting results.....14
 - 10.1 General.....14
 - 10.2 Required reporting elements.....14
 - 10.2.1 Report values.....14
 - 10.2.2 Report summary.....15
 - 10.2.3 Report details.....16
- Annex A (informative) Resistance to air flow calculation.....20
- Bibliography.....22