

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