

ISO 8672:2014-05 (E)

Air quality - Determination of the number concentration of airborne inorganic fibres by phase contrast optical microscopy - Membrane filter method

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 General method description	2
4.1 Limitations of the method by particle type	2
4.2 Limit of visibility and detection limits	2
4.3 Apparatus and equipment	3
4.4 Mounting media	5
4.5 Quality assurance	6
5 Sampling	6
5.1 Flowrate	6
5.2 Acceptable fibre loadings on filters	7
5.3 Storage and transport	7
5.4 Blanks	7
5.5 Sample duration and volume	8
5.6 Sampling strategy and records	9
6 Evaluation	10
6.1 Sample preparation	10
6.2 Microscope adjustment principles	11
6.3 Eyepiece graticule calibration	11
6.4 Microscope/counter performance assessment	11
6.5 Counting and sizing fibres	12
6.6 Calculation of fibre concentration	13
7 Sources of errors and uncertainty	14
7.1 General	14
7.2 Uncertainty	14
7.3 Inter-laboratory variability	16
7.4 Lowering of intra- and inter-laboratory variance	17
8 Test report	17
Annex A (informative) Slide mounting: acetone-triacetin procedure	19
Annex B (informative) Permanent slide preparation: dimethyl formamide - Euparal procedure	21
Annex C (normative) Eyepiece graticule	24
Annex D (informative) Measurement of exposed filter area	27
Annex E (informative) Microscope adjustment procedure	28
Annex F (informative) Sources	29
Bibliography	30