



Method Summary

Asbestos Dustiness

Scope and Range

This method is used to determine the production of dust from soil sample and assess the number of respirable fibres released from soil at varying levels of moisture.

Sample can be analysed "as received", dried, and at 10%, 20%, and 30% moisture content.

Minimum 200g of soil is required for analysis at each moisture level. A single 1l tub or similar size container is recommended.

Method determines the following components:

Dust Concentration (Detection Limit 100mg/m³).

Respirable Fibre Concentration (Detection Limit 0.05f/ml).

Respirable Fibre Count.

Fibre discrimination Where possible each countable fibre will be classified as amphibole, Chrysotile or non-asbestos.

References

BS EN 15051-2:2013+A1 2016 Workplace exposure - measurement of the dustiness of bulk materials. Part 2: Rotating Drum Method.

Asbestos: The Analysts' Guide, HSG248 (Second Edition) published 2021

Principle

A portion of soil sample is placed in a rotating drum where it's being continuously dropped to produce dust. The produced dust is then passed through a set particle size-selective filters and through a 1.2µm nitrocellulose filter at a flow rate of 4l/min., to simulate the average breathing rate of an adult human.

Interferences

Where fibres are too thin so see a clear sign of elongation, they will be classified on morphology alone.