



Method Summary

Asbestos Dustiness

Scope and Range

- This method is used to determine the production of dust from soil sample, and assess the amount 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 fiber will be classified as amphibole, Chrysotile or non-asbestos

References

- BS EN 15051-2:2013 Workplace exposure – measurement of the dustiness of bulk materials. Part 2: Rotating Drum Method.
- HSG248 – Asbestos: The analyst’s guide for sampling, analysis and clearance procedures.

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