

Proficiency Testing Scheme

Asbestos in soil (quantitative) determined by SEM/EDX

1 PURPOSE OF THE PROFICIENCY TESTING

This scheme allows laboratories to demonstrate their competence to determine the asbestos (quantitative) in soils through the SEM/EDX technique .

Microanalitica organizes Proficiency Testing in accordance with the International Standard ISO/IEC 17043.

2 DESCRIPTION OF THE PROFICIENCY TESTING

The scheme "Asbestos in soils determined by SEM/EDX" is offered annually to laboratories.

The soil, which can potentially contain asbestos, is taken from soils characterized by the presence of natural asbestos; the ground passing through the 2 mm sieve is homogenized and divided into plastic cans.

To verify the homogeneity of the sample set, at least 10% of the test samples is analyzed by a single laboratory operating in compliance with ISO / IEC 17025 and the results are statistically processed by Microanalitica Srl according to ISO 13528: 2015.

Each laboratory receives about 30 g of the soil whose homogeneity has been verified.

The laboratory, for analysis, can use the method normally used in its laboratory with the SEM / EDX technique. The result must be expressed in mg/kg on the dry.

It is also necessary to indicate, in the case of an asbestos presence, the type of asbestos found.

3 FINAL REPORT OF THE PROFICIENCY TESTING EVALUATION

To assign the value of airborne asbestos, expressed in asbestos fibers/mm², Micoanalitica Srl follows the instructions contained in paragraph 5.3.1.2 of ISO 13528:2015 which takes into account the results of the participants to calculate the robust average x_{pt} and the robust standard deviation of the test s^* .

The performance of the individual laboratories is evaluated with the z-score calculated according to the expression indicated in ISO 13528: 2015 paragraph 9.4.

Interpretation of the z score:

$|z| \leq 2,0$ indicates "satisfactory" performance and does not generate any signal

$2,0 < |z| \leq 3,0$ indicates "questionable" performance (warning sign - W)

$|z| > 3,0$ indicates "unsatisfactory" performance (allarm signal - A)

4 CONFIDENTIALITY

In order to ensure the confidentiality of the results, the laboratory that participates in Proficiency Testing will be assigned of a number that uniquely identifies it in the PT Final Report.

The identification number is communicated to the email address indicated on Proficiency Testing application form.

Microanalitica Srl guarantees the confidentiality of all the informations acquired by the participants.#