

Proficiency Testing Scheme

Length Weighted Geometric Mean Diameter

1 PURPOSE OF THE PROFICIENCY TESTING

This scheme allows laboratories to demonstrate their competence to determine the Length Weighted Geometric Mean Diameter of Man Made Mineral Fibres .

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

2 DESCRIPTION OF THE PROFICIENCY TESTING

The scheme "Length Weighted Geometric Mean Diameter of Man Made Mineral Fibres" is offered annually to laboratories.

Samples of glass fibers from commercial products are divided into plastic jars.

To verify the homogeneity of the set of samples, at least 10% of the test samples are analyzed and the results are processed statistically according to ISO 13528: 2015.

Each laboratory receives a jar containing the glass fibers whose homogeneity has been verified.

For analysis, the laboratory can use the method normally used in its laboratory with SEM and Optical Microscopy techniques.

In addition to the Length Weighted Average Geometric Diameter - 2 Standard Errors (LWGMD-2SE), the average diameter is also required.

LWGMD-2SE must be calculated as indicated in EC Reg. N.761 / 2009, Annex II.

3 FINAL REPORT OF THE PROFICIENCY TESTING EVALUATION

To assign the value of Length Weighted Average Geometric Diameter - 2 Standard Errors and average diameter, 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)

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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.