VSB TECHNICAL UNIVERSITY OF OSTRAVA | FACULTY OF SAFETY ENGINEERING

Circular Furnace According to DIN 53436

SPECIFICATIONS

The apparatus according to DIN 53436 is intended for the preparation of gaseous fumes of thermal decomposition of materials in an air stream. It consists of a quartz glass tube, on which a circular furnace is moved heating the inner space of the tube to a temperature of 100 - 800 °C. The conditions are set to simulate the first phase of a fire. The apparatus DIN 53436 is connected to an FTIR spectrometer, in which the composition of gaseous fumes is analysed.

MEASURING METHODS

DIN 53436: Producing thermal decomposition products from materials in an air stream and their toxicological testing (2003).

OVERVIEW OF MEASURABLE PARAMETERS / OUTPUT INFORMATION

Output of the measurement is the determination of the composition of gases generated during the heating of the evaluated material depending on the heating temperature. From the analysis of the composition of the mixture, it is possible to determine the toxicity of the resulting products.

TYPES OF SAMPLES SUITABLE FOR ANALYSIS / MEASUREMENT CONDITIONS

Flammable materials, solid and liquid, which decompose with heat in the range of 100 - 800 °C.

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