Calcimeter



Key Features

- Rapid results
- 5 flasks allow for working in batches
- Accurate measurements with the Scheibler method
- NEN-ISO 10693 certified

Applications

- Soil physical laboratory research

Specification	
Number of samples	5 identical setups
Sample specification	Disturbed soil
Measured parameters	Carbonate content
Weight	30 kg
Package size	146 x 62 x 59 cm

A good amount of calcium carbonate in the soil shows that the pH is good, and acidity is not too high. This is important information when researching the quality of soil. It shows that the conditions for soil life are good. The determination of carbonate content is an important step in the soil classification process, and research how suitable soil is for its intended use.

The calcimeter design

This calcimeter is suitable for use in a professional lab and made to be sturdy and durable. Where possible, vulnerable glass was replaced with synthetic materials. The design is stable and ergonomic, to ensure safe use of hydrochloric acid. The calcimeter comes with reaction vessels and test tubes (without reagents). A reaction takes approximately one hour. Carbonates that are hard to dissolve, such as seashells, take more reaction time.

Using the calcimeter

The quantity of sample needed is determined beforehand by treating a part of the sample with hydrochloric acid on a watch glass. The carbonate content is estimated based on the extent and period of bubbling. Based on this estimate, the quantity of sample for the analysis is determined.

Accurate results

This calcimeter does not use a balloon to keep the CO2 separate from the water (to prevent any gas from dissolving in the water). This results in much more accurate measuring results. To ensure accuracy with repeated measurements, a series should be executed in a room where changes in temperature do not exceed 4°C. The reagents used must also meet the standards for analysis.
Note that other gasses may be released as well, for instance if the soil is polluted. The gas will then have to be purified first, and the CO2 will have to be determined otherwise.