



## **Method Summary**

### **Determination of Acid Neutralisation Capacity (ANC) using the Metrohm Autotitrator (Model 815)**

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#### **Scope and Range**

This test measures the amount of 1 M Hydrochloric acid required to change the initial pH of a soil slurry from its initial value to two successive pH values of 6 and 4 respectively. This value is then used to determine the ANC at each pH and the result expressed as mol/kg (dry weight).

Practical detection limit      0.03 mol/kg

Practical Range                0.03 to 5 mol/kg

#### **References**

Annex B (preliminary Determination of the Acid/Base consumption) - CEN/TC 292 - WI 292046- characterization of waste-leaching Behaviour Tests- Acid and Base Neutralization Capacity Test

#### **Principle**

All samples are dried and crushed prior to analysis. 5g of sample is weighed into a plastic tub and sent to the lab for analysis. The samples are loaded onto the instrument by carefully and completely emptying the samples into the autotitrator sample beakers and adding 100mls of de-ionised water. The beakers are then gently mixed by hand and placed onto the auto sampler turntable in sequence.

The autotitrator will calculate the ANC values at pH 6 and pH 4. Any results over the range of the method should be discarded and a repeat analysis performed on a smaller weight of sample.

#### **Interferences**

Soaps, oily matter, or precipitates may coat the pH electrode.