

**Determinand:**

Determination of the concentration of particulate matter under the prescribed empirical conditions of the settling test and sub-sampling for the determination of non-settleable COD, BOD and suspended solids

Matrix:

Sample Type: Industrial effluents, sewage samples and other related samples

Principle of Method:

The sample is first neutralised then settled to provide a sub-sample for analysis. Some clients request a non-neutralised settle in which case the sample is only settled. A five minute settle can also be requested where the sample is again not neutralised and only allowed to settle for five minutes. Settleable solids are determined by subtracting the concentration of solids left in suspension after a one hour defined settlement test, (the particulate non-settleable solids) from the concentration of total suspended solid content of the sample. This determination is usually carried out in order to assess the charge to be levied on industrial effluent discharges to sewer. The settled sample can also be analysed for COD and BOD

Sampling and Sample Preparation:

Samples are normally taken in 1 L PET bottles.

Samples are stored at 3 ± 2 °C until ready for analysis.

A well shaken representative sample should always be used.

Analysis should be carried out as soon as possible after sampling.

Interferences

N/A

Performance of Method:

Performance criteria will vary according to the nature of the sample. Details for the gravimetric determination of the suspended solids are given in the method for the determination of suspended solids (WWC21). Performance characteristics for BOD and COD determination are given in the analytical methods (WWC11 and WWC13 respectively).

References:

Methods for the Examination of Waters and Associated Materials HMSO, Suspended, Settleable, and Total Dissolved Solids in Waters and Effluents 1980, ISBN 0 11 751957 X

Methods for Wastewater Characterization in Activated Sludge Modelling, 2004, ISBN13: 9781843396628, IWA Publishing