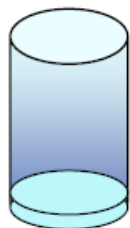


Ashing Procedure

ANKOM Filter Bags (F57, XT4 and *In situ* Bags) are virtually ash free, therefore they can be used for ash determination. They can be ashed using conventional means. When the F57 Bag kindles, it will produce a small puff of smoke. Ovens with vent hoods are very helpful.



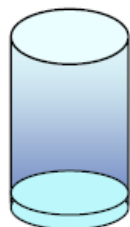
**Record weight of a clean crucible
or other suitable vessel for ashing process**



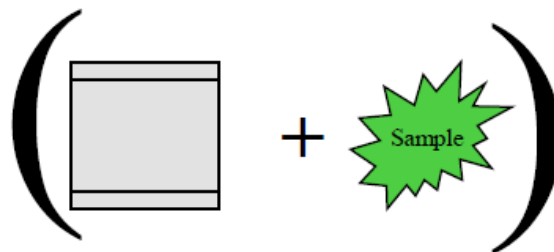
+



**Record weight of digested and dried
filter bag with sample enclosed**



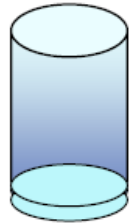
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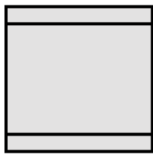
**Insert filter bag/sample
into crucible and ash**

Pre-weighed
crucible

Ashing Procedure - *Sample*



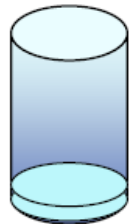
Crucible weight = 30.2432 grams



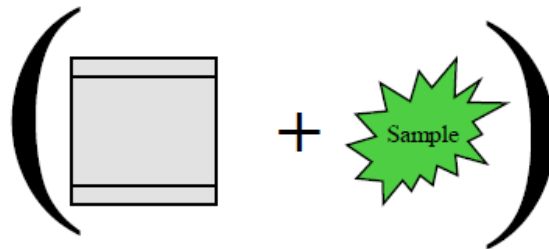
+



Digested Filter bag/sample weight = .7954



+



Combined weight = 31.0386 grams

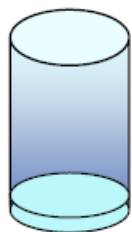
Pre-weighed
crucible

Ashing Procedure - *Sample*

After Ashing (550°- 600°C)



Re-weigh crucible and contents and record weight



Pre-weighed
crucible

+



Remaining ash
(inorganic matter)

Combined weight after ashing = 30.2586 grams

Ashing Procedure - *Sample*

Determining loss in weight after ignition (Ashing)

Pre-ignition Combined weight of crucible and filter bag/sample = 31.0386 grams

Minus Combined weight after ashing = 30.2586 grams

Loss of weight after ignition = 0.7800 grams (organic matter)

Ashing Procedure - *Sample*

Using the ashing results in a formula

Example given - **Crude Fiber**

$$\frac{(W_4 - (W_1 \times C_2)) \times 100}{W_2 \times DM}$$

$$\frac{(0.7800 - (.7603 \times 0.998)) \times 100}{1.0433 \times .95}$$

Crude Fiber = 2.141%

W_1 = Original bag weight

W_2 = Sample Weight

W_3 = Weight after extraction

W_4 = Weight of Organic Matter (Loss of weight on ignition of bag & fiber residue)

C_1 = Blank Bag Correction (final oven-dried weight/original bag weight)

C_2 = Ash corrected blank bag (Loss of weight on ignition of bag expressed as a decimal)

DM = Dry Matter value as decimal

For this example

W_1 = 0.7603

W_2 = 1.0433

W_4 = 0.7800

C_2 = 0.998

DM = 0.95 (95%)