



Systems

Phoenix BLACK

Equipment

50 mL Porcelain Crucibles
Analytical Balance
Disposable Pipette
Gloves
H₂SO₄
Tongs

Sample Preparation

None.

Procedure

1. Program a "Ramping" Sulfated Ash method with calculation mode "Ash" in the Phoenix BLACK using parameters located in "Stages" section.
2. Weigh a crucible that has been preashed for at least 10 minutes at set temperature and record weight.
3. Weigh ~3.5 grams of sample and record weight.
4. Add 20 drops of 1:1 H₂SO₄ into crucible containing sample.
5. Place crucible in furnace that is less than 100°C and start method.
6. After stage one, prior to stage two, during hold phase, remove crucible, allow to cool and add another 5 drops of 1:1 H₂SO₄ into crucible.
7. Place crucible back into furnace and continue method.
8. Remove sample and allow to cool in dessicator.
8. Reweigh crucible containing ash and record weight.
9. Calculate percent ash:
(Weight of Ashed Sample With Crucible - Weight of Crucible) / Weight of Sample x 100

Parameters

Stage	Dwell Time (minutes)	Temperature (°C)	Sample Size (g)
1	30	550	3.5
2	120 (Hold On)	550	-

Notes

1. Never insert samples into furnace above 100°C.
2. Pump should be turned on in each stage of a sulfated ashing method where acid is introduced.

*The above parameters are suggested starting points and may need to be modified to meet certain product specifications.