



Systems

PHOENIX BLACK

Equipment

Analytical Balance
Tongs
Gloves
Desiccator
50 mL Porcelain Crucibles
H₂SO₄

Sample Preparation

None.

Procedure

1. Program Phoenix Black using parameters located in "Parameters" section and allow furnace to reach set temperature.
2. Weigh a crucible that has been preashed for at least 10 minutes at set temperature and record weight.
3. Weigh ~4 grams of sample and record weight.
4. Add 20 drops of 1:1 H₂SO₄ into crucible containing sample and heat over hot plate until sample is well carbonized.
5. Place crucible in furnace and ash for 60 minutes.
6. Remove crucible, allow to cool and add another 5 drops of 1:1 H₂SO₄ into crucible containing sample and heat over hot plate until all sulfuric acid solution has evaporated.
7. Place crucible back into furnace for 120 minutes.
8. Remove sample and allow to cool in desiccator.
8. Reweigh crucible containing ash and record weight.
9. Calculate percent ash:

$(\text{Weight of Ashed Sample With Crucible} - \text{Weight of Crucible}) / \text{Weight of Sample} \times 100$

Parameters

Stage	Dwell Time (minutes)	Temperature (°C)	Sample Size (g)
1	60 (hold)	550	4
2	120	550	-

Notes

None.

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