

# IP 501

## Milestone Application Note for Ashing – High Throughput - Officials



### Summary

This procedure covers the determination of aluminium, silicon, vanadium, nickel, iron, sodium, calcium, zinc and phosphorus in residual fuel oils according to IP 501 method.

### Instrumentation

**Milestone PYRO** microwave system

**HighThroughput** muffle furnace

Platinum crucibles

Analytical balance ( $\pm 0,0001$ g)

Disseccator

Spatula



### Sample amount

Sample weight	20-50 g (according to the expected ash content)
N° of crucibles (max)	2
Total sample amount (max)	50 g

### Microwave program

Step	Time	T1	Power	Vent.
1	00:15:00	250°C	1000 W	***
2	00:40:00	250°C	1000 W	***
3	00:30:00	525°C	1800 W	***
4	01:00:00*	525°C	1800 W	***

\* Ashing time must be extended until all the carbon is removed.

### Procedure

1. Place a clean crucible on the balance plate, tare it and weigh the sample.
2. Place the crucible into the preheated furnace.
3. Remove the crucible from the furnace and cool it in disseccator.

### Notes

After the ashing, the crucibles will be cooled and a suitable flux will be added.

The crucible with the flux will be placed into PYRO muffle at 925°C for 15 minutes.

### General precautions

Always use hand, eye and body protection when operating with the microwave system.

Subject to change without notice.  
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