

# ISO 3451-1 (C)



## Milestone Application Note for Ashing – Sulphate ashing - Officials

### Summary

This procedure covers the determination of the ash content of a range of plastic samples (resins and compounds) according to ISO 3451-1 (C) method.

### Instrumentation

**Milestone PYRO SA** microwave system

Crucibles (quartz, ceramic)

Analytical balance ( $\pm 0,0001\text{g}$ )

Disseccator

Spatula



### Sample amount

Sample weight	1-5 g (according to the expected ash content)
---------------	---

### Reagents

Reagent*	1 mL of H <sub>2</sub> SO <sub>4</sub> *
----------	--

\* Add a sufficient amount of sulphuric acid to moisten the material completely.

### 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.
4. Place the crucible on the balance plate and take the weigh.
5. Calculate the ash residue.

### Notes

The crucible before use must be at constant weight.

**All modifications to the present method must be agreed with Milestone Application Specialist.**

### Microwave program

Step	Time	#T1	Power	VAC
1	00:15:00	250°C	1000 W	X
2	00:40:00	250°C	1000 W	X
3	00:30:00	#600°C	1800 W	X
4	00:30:00	#600°C	1800 W	

# The ashing temperature must be set in accordance to what prescribed for different types of plastics.

### General precautions

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

Subject to change without notice.  
For additional information please contact  
[application@milestonesrl.com](mailto:application@milestonesrl.com)

