

ISO 2171

Milestone Application Note for Ashing – High Throughput - Officials



Summary

This procedure covers the determination of the total ash content of cereals, pulses and their milled products according to ISO 2171 method.

Instrumentation

Milestone PYRO microwave system

HighThroughput muffle furnace

Crucibles (quartz, ceramic, platinum, rhodium)

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

Diseccator

Spatula



Sample amount

Sample weight	2-5 g (according to the product type and expected ash content)
N° of crucibles (max)	12
Total sample amount (max)	50 g

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

Microwave program

Step	Time	#T1	Power	Vent.
1	00:25:00	#550°C	1800 W	*
2	*02:00:00	#550°C	1800 W	*

The ashing temperature (550° or 900°C) must be set in accordance to what provided by the official method for each product type.

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

Notes

The crucible before use must be at constant weight.

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

Subject to change without notice.
For additional information please contact
application@milestonesrl.com

General precautions

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

