

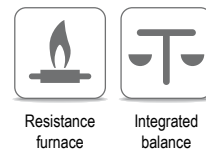
Moisture and ash determination in sausages

Suitable analyzers

- TGA Thermostep

Used accessories

- Ceramic crucible (26063)
- Spatula (23111)
- Quartz sand (90840)



Settings	Step Moisture ----->	Step Ash
■ Temperature:	105 °C	600 °C
■ Speed:	0 °C (= automatic)	0 °C (= automatic)
■ Type:	Stop by deviation	Stop by deviation
■ Time:	0 sec	0 sec
■ Deviation:	0.001	0.001
■ Gas:	Nitrogen	Oxygen

Formulas

- Dry mass: $100 - ((X[0] - (X[1] - Y[1])) / X[0] * 100)$
- Ash (as analyzed): $(X[2] - Y[2]) / X[0] * 100$
- Ash (dry base): $(X[2] - Y[2]) / X[1] * 100$

Procedure

- Prepare and clean the ELTRA analyzer (e.g. remove ash from the crucibles)
- Check pressure of the oxygen and nitrogen bottle
- Prepare the application according to the recommended settings
- Select this application in the TGA software; log in the sample names and fill approximately 1-2 g of quartz sand (90840) into the crucibles before the weight is taken by the internal balance
- Set the option "Balance Button" to "Yes"
- When the current crucible is placed on the pedestal fill in approximately 1 g of sample
- Remove the crucible carefully from the TGA carousel and mix the quartz with the sample (e.g. with a quartz tube or a small spatula)
- Put the crucible back on the carousel and confirm the weight by pressing the balance button

-> Proceed like this for all samples.

The measured sample was a certified reference material*
 Certified values: Dry mass (%): 33.5 ± 0.3 Ash content (%): 2.55 ± 0.3
 The ELTRA TGA Thermostep determined the certified values successfully.
 * = Company LVU, 79336 Herbolzheim, Germany: 1201A: Sausage Standard Parameter

Typical results (1 g Sample weight)		
Sausages		
Weight (g)	Dry mass (%)	Ash dry (%)
1.08	33.33	2.70
1.48	33.36	2.75
1.04	33.38	2.76
1.17	33.92	2.73
1.14	33.47	2.71
1.2	33.63	2.73
1.13	33.37	2.71
1.49	33.54	2.78
1.27	33.59	2.73
1.19	33.67	2.72
Average values		
	33.53	2.73
Deviation		
	0.18 / 0.55 %	0.02 / 0.88 %