

A 17 a - Foam Test

GEA Niro Method No. A 17 a

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1. Definition

The foam is the height of the foam layer on top of the liquid in mm after 3 and 15 minutes

2. Scope

The method is used for foaming agent powders, e.g. cappuccino powder.

3. Principle

A foaming agent powder is mixed with coffee, sugar and water. The foam layer is evaluated after a given time.

4. Apparatus

1. Balance - ± 0.1 g
2. 250 ml beaker - external diameter 70 ± 2 mm, height 95 ± 3 mm, calibrated with a mark at 100 ml.
3. Teaspoon - (height 40 mm, width 29 mm)
4. Stop watch
5. Thermometer - $0-100^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$

5. Reagents

1. Standard instant coffee (Nescafé extra or similar)
2. Sugar - granulated sugar beet ('Dansukker melis, De danske Sukkerfabrikker')

6. Procedure

1. Dry mix 6.0 ± 0.1 g of foaming agent powder, 3.6 ± 0.1 g of sugar and 2.4 ± 0.1 g of instant coffee in a 250 ml beaker.
2. Add water at $80 \pm 1^{\circ}\text{C}$ to the 150 ml mark of the beaker.
3. Immediately mix the content of the beaker with a teaspoon for 10 seconds using 2 sets of:
 - 6 complete revolutions clockwise
 - 6 complete revolutions anti-clockwise.
4. Read the height of the foam layer on top of the liquid in mm after 3 and 15 minutes.

7. Result

The results are reported as the height in mm after 3 and 15 min.
The presence of lumps etc. in the foam should also be reported.

8. Reproducibility

± 0.5 ml

9. Remarks

N/A

10. Reference

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