

## A 17 a - Foam Test

### **GEA NIRO® Method No. A 17 a**

Revised: January 2024

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

#### **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  $6.0 \pm 0.1$  g of foaming agent powder,  $3.6 \pm 0.1$  g of sugar and  $2.4 \pm 0.1$  g of instant coffee in a 250 ml beaker.
2. Add water at  $80 \pm 1^{\circ}C$  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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