

The new Amylograph-E

The Brabender® Amylograph - which has been the standard instrument world-wide for measuring the gelatinization characteristics and enzyme activity of flour - has been completely revised and now appears with a completely new, compact design.

Application

The baking properties of flour mainly depend on the gelatinization of the starch and on the enzyme activity (α -amylase) in the flour.

The Brabender® Amylograph-E measures wheat, rye, and rice flour and enables

- Assessment of the flour quality and of the suitability of the flour for various applications
- Production control and checking of flour blends in the mill
- Measurement of the baking characteristics of flours (α -amylase content, gelatinization maximum, temperature in the gelatinization maximum)
- Assessment of special flours, diastatic baking agents, self-raising flours, etc.
- Well-aimed addition of enzymes

The heating rate of 1.5°C/min (AACC/ICC) corresponds with the temperature increase of bread during baking, i.e. the measuring data of the Amylograph-E provide reliable information about the gelatinization behavior of flour during baking in practice.

The mechanical measuring system was substituted by state-of-the-art electronics. The result is the Amylograph-E.

**Flour testing in
compliance with
AACC 22-10
ISO 7973
ICC 126/1**



Brabender

State-of-the-art measuring system and software

The new Amylograph-E

The principle

A suspension prepared from the flour sample and distilled water is heated with a constant heating rate within a rotating bowl. Depending on the viscosity of the sample within the rotating bowl, a measuring sensor reaching into the bowl is deflected. This deflection is measured by a high-precision electronic measuring system as a measure of the viscosity over the time, i.e. vs. temperature, and recorded on-line through the software.

The procedure is described in several international standards:

- ICC Standard No. 126/1
- AACC Standard No. 22-10
- ISO 7973

The rapid Amylogram with smaller sample weights and shorter measuring times provides quick results, and correlates very well with the standard method.

The Amylogram

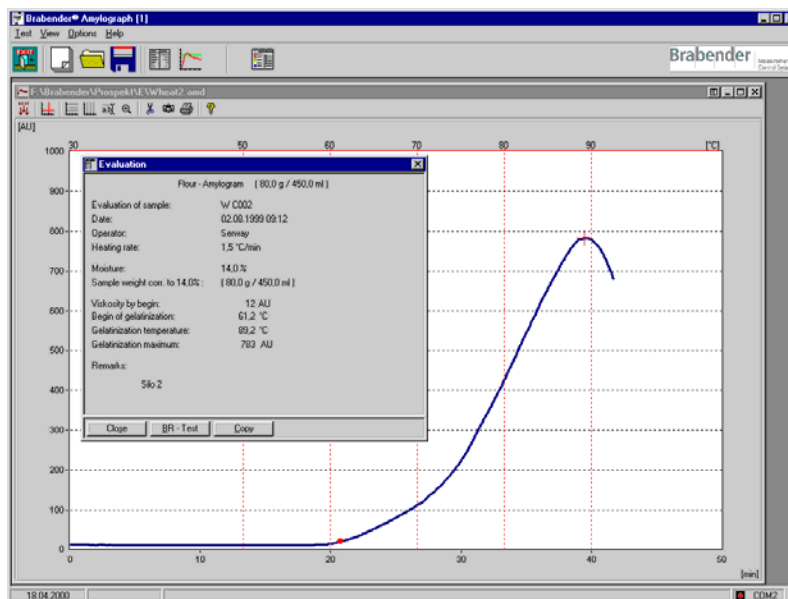
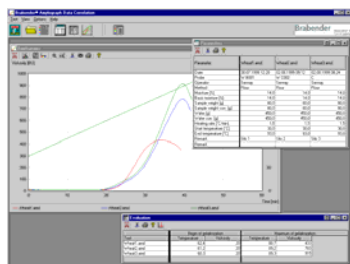
Enter all test conditions from your computer keyboard. A simple keystroke suffices for defining your sample material (flour or coarse meal), and then set any starting temperature for your test (ICC: 30°C). The program calculates the corrected sample weight and water addition to be used on a 14 % moisture base. The Amylogram shows

- Beginning of gelatinization
- Gelatinization maximum
- Gelatinization temperature

With rye samples, a keystroke allows to check whether the limits for bread rye quality are met or not (gelatinization maximum ≥ 200 AU, gelatinization temperature $\geq 63^\circ\text{C}$).

Data correlation

Use the powerful correlation program to compare diagrams and results of up to 10 tests with each other. Test conditions and results are contrasted in tables and evaluated statistically. Quickly assess trends or irregularities by drawing and printing all diagrams of the correlation together in a single plot.



Technical data

Sample volume	approx. 550 ml
Heating capacity	500 W (230 V) or 550 W (115 V)
Heating rate	Standard (ICC): 1.5°C/min selectable from 0.1 to 3.0°C/min
Speed	75 min ⁻¹
Torque measurement	electronically
PC port	USB
Mains connection	115/230 V, 50/60 Hz
Dimensions (H * W * D)	830 * 470 * 350 mm
Weight	approx. 30 kg

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