

The “small” Viscograph for measuring the gelatinization properties of starch and flour

Brabender: Micro Visco-Amylo-Graph



For measuring the gelatinization properties of starches and flours



The Micro Visco-Amylo-Graph is used in particular for measuring the gelatinization properties of starch and starch containing products, but also for testing the viscosity of liquids, suspensions, and pasty products and, with flours, for determining the enzyme activity (α -amylase).

Consequently, the application fields of this new instrument range from the food industry over paper and textile industries up to the chemical industry.

Special Software

- **Data correlation program:** Up to 15 curves can be shown and evaluated simultaneously within one chart
- **Universal evaluation profiles:** Beside the standard evaluation with peak viscosity, own evaluation profiles can easily be programmed and used. These profiles can include for example areas, peaks, fixed points, drops, etc.

The evaluation is done in BU, mPas or cmg.



CD-200F Refrigerated / Heating Circulator

Support the reproducibility and accuracy of your measurements by using the CD-200F Circulator.

Micro Visco-Amylo-Graph

As compared to the Viscograph, the Micro Visco-Amylo-Graph stands out for reduced sample weights and increased heating/cooling rates. Although test times are considerably shortened, results are comparable to those of the Viscograph.

The instrument is equipped with an integrated, self-optimizing temperature control unit which, together with the comfortable software, permits easy programming and running of any temperature profile. Heating/cooling rates from 1.5 °C/min up to 10 °C/min are possible.

Specification

- Measuring system with rotating bowl
- Measurement with torque sensor
- Temperature control through RTD within the sample
- Electric resistance radiant heating system
- Immersion-type heat exchanger for cooling the sample with tap water, triggered by solenoid valve
- Electronic temperature program controller

The small sample bowl allows you to reduce your sample weights to as little as 2 to 15 g for 100 - 110 ml of water, depending on your material. An integrated automatic return-type steam trap prevents loss of vaporized water.

The extensive software running under Windows allows programming of test cycles for manifold samples and applications.

Test conditions and temperature profiles can be stored and recalled at any time for a new test.

Just like the Viscograph, the Micro Visco-Amylo-Graph has a rotating bowl. The paddle, which completely immerses into the sample, is connected to a high-resolution torque sensor for precise viscosity determination. The special geometry of the paddle ensures good mixing of the sample – there is no sedimentation of starch particles.

Temperature measurement is done directly in the sample. This makes it easy to always precisely assign the temperature to the current viscosity.

Applications

Profit from the versatility and reliability of the Micro Visco-Amylo-Graph – in the food industry, in the paper and textile industries, or in the chemical industry:

- Measure the gelatinization properties of flour, and native or modified starch
- Measure the enzyme activity in flour (e. g. sprout)
- Measure starch retrogradation (during the cooling process)
- Adjust the diastatic activity by adding enzymes (e. g. malt flour)
- Measure the influence of extrusion conditions onto the extruded product

Advantages

- Heating/cooling rates up to 10 °C/min (optimized for 7.5 °C)
- Quick measurement
- Small sample weights
- Integrated, self-optimizing temperature control unit
- Temperature measurement inside the sample
- Speed profiles programmable
- Reference curves can be stored
- Easy handling and cleaning
- Results comparable to those of the standard Viscograph
- Stainless steel bowls and paddel; therefore no follow-up costs

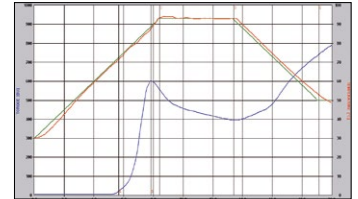


Diagram Micro Visco-Amylo-Graph

Micro Visco-Amylo-Graph	
Sample volume	115 ml
Speed	0 - 300 min ⁻¹
PC port	USB
Mains connection	230 V; 50/60 Hz + N + PE; 2.8 A 115 V; 50/60 Hz + PE; 5.6 A
Dimensions (W x H x D)	450 x 750 x 380 mm
Weight	approx. 30 kg net