

- Compliance with international standards for testing flour quality
- Practice-oriented test procedure:
 - Gentle heating up from 30°C → 93°C
 - Recording of the full enzyme activity
 - No deactivation of enzymes before recording
 - Heating rate similar to the crumb inside the bread
- Guaranteed high flour and end product quality:
 - Prediction of the flour's baking characteristics
 - Well-aimed addition of enzymes
- No production losses due to usage of inappropriate material

Benefits

Brabender®

... where quality is measured.

Brabender® GmbH & Co. KG

Kulturstr. 49-55 · 47055 Duisburg · Germany

Phone: +49 203 7788-0

food-sales@brabender.com

www.brabender.com



Contact us

Amylograph®-E

Measure the gelatinization properties
and enzyme activity of flour



Application

What does it measure?

- The starch properties
- The enzyme activity (alpha amylase)

Why is this important?

- The baking properties of flour depend on the gelatinization of the starch and on the enzyme activity (α -amylase) in the flour.
- High enzyme activity, as indicated by sprouting in wheat, produces sticky dough that can cause problems during processing and results in products with poor color and weak texture
- Flour supplied from the mill can be checked if it meets the specifications for the given application

An investment that pays off

Enzyme activity in the flour is too high – what happens?

Bread loaves in the oven (without baking moulds) become too flat
Result: Bread has to be disposed → loss of production

A practical example – Initial situation:

| | |
|---|--------------------|
| Supplied quantity of flour | 25 t (1 truckload) |
| Used quantity of flour till quality deviation can be detected | 4,000 kg |
| Total quantity of dough (incl. sugar, salt, fat, yeast,...) | 6,400 kg |

Loss calculation:

| | |
|--|---------|
| Main ingredient: flour (0.25 €/kg at 3,000 kg): | 1,000 € |
| Other ingredients: sugar, fat, salt, yeast, baking improvers,... | 250 € |
| Total loss (not including wasted personnel, production and disposal costs) | 1,250 € |

An investment that pays off

Lost turnover:

The sales value of baking products is – depending on the product – between 5 and 10 times higher than the costs for the raw material used in production

$$\times 5 = 6,250 \text{ €}$$

$$\times 10 = 12,500 \text{ €}$$

Related questions:

- What to do with the rest of the poor quality flour?
- Was the flour bought at a too high price?
- Loss caused by production downtime