

Premixed Dough Method

Scope

- Test dough taken from production line
- Quality control

doughLAB

The doughLAB is a flexible dough rheometer with conventional z-arm mixing action. It includes automated systems to control bowl temperature and dispense water into the sample, and variable temperature and speed controls. The instrument uses standard or custom test configurations to determine water absorption, dough mixing profile, development time, stability and softening of wheat, rye, durum and composite flours for milling, baking, and foods laboratories.



Description

Premixed dough is a half-product that can either be used in subsequent processing steps (eg. sheeting, rolling, and baking) to achieve a final product (eg. biscuit/cookie, cracker, bread), or sold as a half-product (eg. chilled dough) for use by the end-user to produce a final product (eg. biscuit/cookie). The consistency of the premixed dough plays an important role in determining the quality of the final product.

This method tempers the premixed dough to the temperature of the subsequent processing step, and rapidly measures the consistency of the dough. The method is applicable to high-water addition doughs (such as that used in bread production), and low-water addition, high-fat doughs (such as that used in biscuit/cookie production). The Premixed Dough method can be used to control the quality of the half-product.

Since the torque is the only parameter of interest, the profile switches off the water dispensing system of the doughLAB.

Method

Rapid, two-minute profile, set at the temperature of the subsequent processing step.

Sample Preparation

500.0 g (or 80.0 g if 50-g bowl used) premixed dough sample.

Profile

Time	Type	Value
00:00:00	Temp	Temperature of next processing step in production line
00:00:00	Speed	63 rpm
00:02:00	End	
Premix time: 0 s. Pre-flour zero time: 10 s. Premix speed: 63rpm		

Measure

PT: Peak torque (FU)

FT: Final torque (FU)

EP: Energy at peak (Wh/kg)

TE: Total Energy (Wh/kg)

Since a finished dough is being tested, the water dispenser should be disabled. This has been programmed in the profile provided in the instrument software DLW.