Sponge Cake

Formula

Flour*	100 grams
Eggs	100 grams
Sugar	100 grams
Water	40 grams

**14 percent moisture basis*

Procedure

1. Eggs, water, and sugar are mixed together with gentle heating to achieve a foamy batter with a consistent viscosity (target specific gravity: 25±1 grams per milliliters; temperature: 30±1 degrees Celsius).
2. Flour is folded into the batter and poured into a round cake pan with a paper liner.
3. The cake is baked at 180 degrees Celsius for 30 minutes.
4. The cake is removed from the oven and placed on a wire cake rack to cool.

Results

- Sponge cake is evaluated for volume, external and internal characteristics, and texture. The results are expressed as a numerical score based on comparison to a control sample.
- Sponge cake is weighed and measured for volume. The results are expressed in grams for weight and in cubic centimeters for volume.
- External characteristics are evaluated by visual examination for shape, crust color, and cake appearance.



Sponge cake.

- Internal characteristics are evaluated by visual examination for cell uniformity, cell size, and cell wall thickness.
- Texture can be determined for softness with the TA.XT2 Texture Analyzer (see page 66).

Why is this important?

Sponge cake is a popular dessert in Asia. Sponge cake production is a typical use of weak gluten flour, which is used for many confectionery products. The sponge cake test allows manufacturers to evaluate the suitability of the flour for these products. Flour with low protein content, low ash content, and weak gluten characteristics makes good quality sponge cake.

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