



NUTRILAC® BK-7900
- MAKING GREAT CAKES COST LESS

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Arla Foods Ingredients has created a new opportunity for 100% egg replacement in sponge cakes. Adding to our broad range of high quality, milk-based functional ingredients, we have developed NUTRILAC® BK-7900 – an easy and proficient way to beat fluctuating egg prices and save up to 30% on liquid egg costs.

Our NUTRILAC® products have long provided the global bakery industry with important, value-adding benefits. To assist you in optimising your bakery products, we develop new or improved formulations and run application trials in our advanced pilot bakery facilities. Our knowledge of bakery processes lies behind all our recommendations, ensuring our solutions give the very best possible results on your production lines.

BENEFITS

- 20-30% savings on egg costs
- Similar or improved functionality compared to egg
- Easy to apply
- Experienced application support
- Excellent cake quality
- No need for pre-blending or cooling
- 18-month shelf life
- Clean-label milk protein

Successful egg replacement

Use the replacement key below to reduce or entirely replace eggs in a typical sponge recipe using NUTRILAC® BK-7900:

10% NUTRILAC® BK-7900

13.5% wheat starch

75% water

1.5% extra emulsifier

The milk protein contributes to a very stable cake batter, leading to low batter density. This secures a high volume in the finished sponge cake.

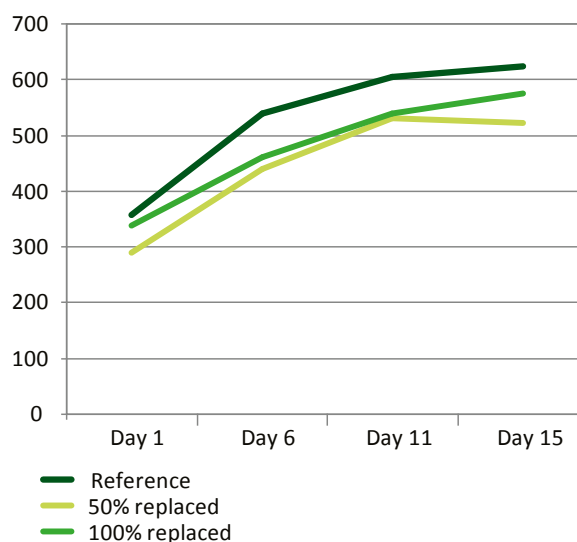


Quality

A 21-day shelf-life test was carried out to determine how egg replacement with NUTRILAC® BK-7900 gives textural changes in terms of crumb softness.

Hardness, springiness and resilience were measured using a texture profile analyzer from Stable Micro Systems. At a speed of 5mm/second, the plastic 28mm probe was twice pushed 40% down into a 30mm-deep sample. There was a 5-second interval between the two pressure applications.

Hardness: Max peak force.

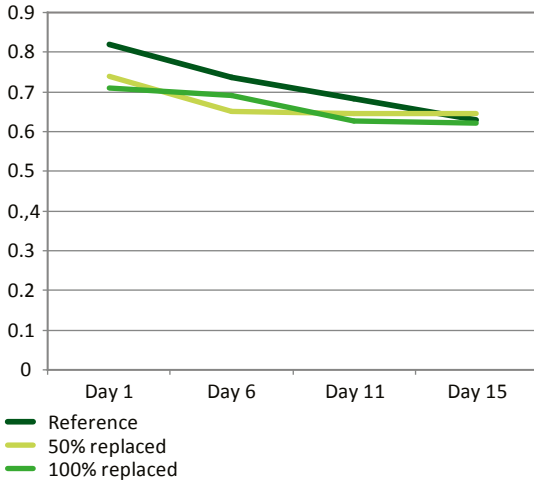


Max peak force is the force needed to drive the probe 40% into a 30mm thick cake slice.

Therefore the higher the measure the harder the crumb.

Springiness:

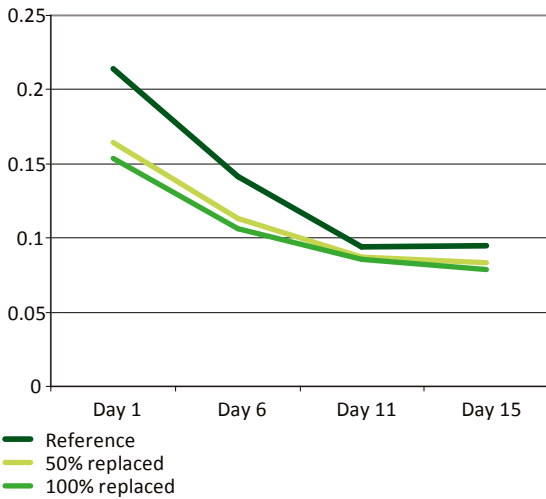
The difference between the length of the measurements



Springiness is the measure for the crumbs ability to bounce back between two pressure points. It is also called elasticity. In practical it measures the difference between two pressure points, hence the shorter the measure the better/faster the bounce.

Resilience:

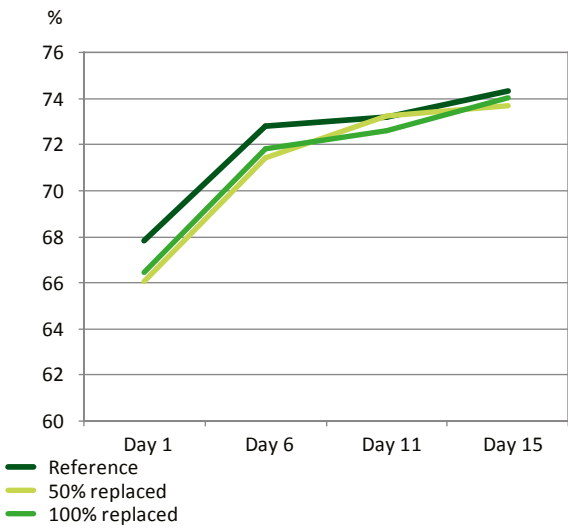
The extent to which strength is maintained on the second pressure application



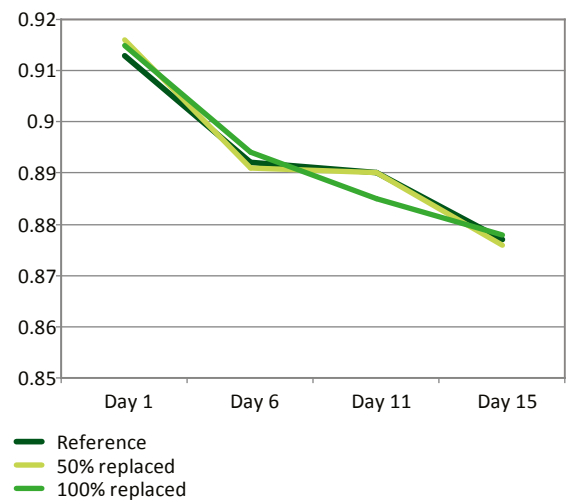
The measure is the return from the first pressure when measuring springiness. The force of the bounce is measured. In other words, how fast/strong does the cake structure regain the shape. A high measure is most often regarded as a hard crumb.

Water activity and moisture were measured on day 1. As can be seen, NUTRILAC® BK-7900 does not affect these parameters and, consequently, has no influence on your product’s current shelf life in relation to moisture.

Dry matter:



Water activity:



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Recipes and procedures used

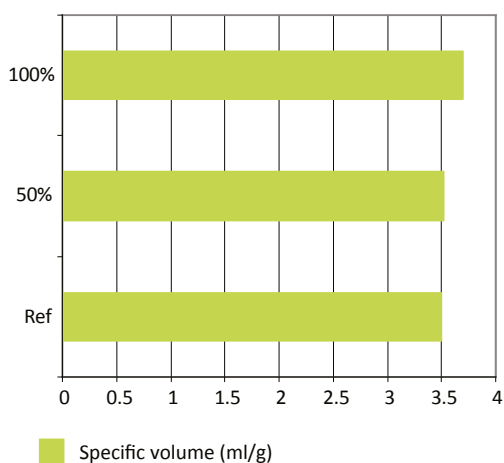
Recipes for reference cake with eggs and 50% egg-replaced cake and 100% egg-replaced cake

Ingredients	Reference	50% replacement	100% replacement
Sugar	244.0	244.0	244.0
Cake flour	208.0	208.0	208.0
Wheat starch	130.0	141.3	152.0
Baking powder	17.0	17.0	17.0
Eggs	250.0	125.0	
Water	141.0	234.8	329.0
Emulpals 116	10.0	12.5	25.0
NUTRILAC® BK-7900		17.5	25.0
Total	1000.0	1000.0	1000.0

Procedure A:

1. Temper all ingredients.
2. Mix in hobart with whip in 10 sec. at 1st gear and 5 min at 3rd gear.
3. Scale 250g in round tins.
4. Bake at 185°C in 30 min.
5. Rest and pack.

Volume:



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Twintell® Application Programme



**Expose your business
to natural evolution**



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The programme in a nutshell

The Twintell® Application Programme is in many ways a simple answer to the complex question: how can I improve my product, my time to market, my production and at the same time reduce my costs? With Twintell®, you can do it all, and the best part is that there are no strings attached. We simply give you the benefit of our expertise and we hope you are so pleased with the results that you decide on a longer lasting partnership.

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Step 1: Define

Cost effective sponge cakes



Step 2: Develop

NUTRILAC® BK 7900



Step 3: Deploy

Application work done in the Bakery laboratory

CONTACT



Find out more

Interested in learning more about how NUTRILAC® BK-7900 can benefit your bakery production?
Contact your Arla Foods Ingredients representative.

For more information, please contact:

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