

Non-sticky fondant

A NEW FREEZE-PROOF, THAW-STABLE FONDANT ICING HAS BEEN PRODUCED WHICH DOES NOT STICK TO THE PACKAGING MATERIAL AND KEEPS ITS ATTRACTIVE APPEARANCE



++ figure 1
Pastry rolls with a fondant icing, made on an industrial line. Color and transparency of the fondant can be individually controlled

++ figure 2
Industrial production of fondant-covered rolls

+ Technology consultant, Ulrich Gerhard, Abtsteinbach, Germany, has developed a new fondant icing which allows production and marketing people time to relax.

Fondant is derived from the French word “fondre” which means “to melt”. Fondant is a cooked mass of sugar and water which is beaten to yield a creamy consistency which melts in the mouth. Bakers and pastry chefs have problems when using fondant as the icing is always close to its flow point and far from any consistent texture. Fondant has a high water affinity. After application, almost immediately it picks up moisture from the air or from the

bakery item. Fondant icings, preferably on packed items, absorb moisture from the bakery product, thus accelerating staling. If the applied fondant is too hard, it chips off easily when pastry packs are stacked on the shelves. If the fondant contains too much water, it will stick to packaging materials and fingers, thus reducing eating pleasure. The reaction of the water also explains why fondant develops a rather volatile behavior during freezing and thawing.

Despite its problematic behavior, fondant icing has an advantage that can hardly be topped: It is very popular with young and old and it ►



++ figure 1



++ figure 2



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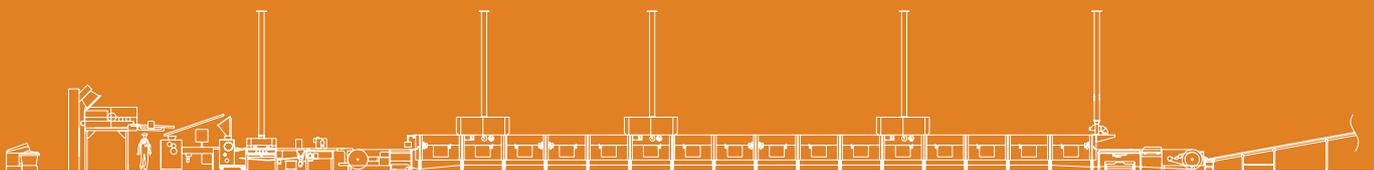
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++ figure 3

The product carriers show less soiling than when common fondant is used



++ figure 4

++ figure 4

The difference is clearly visible. Both nut-filled braided pastry items were iced with fondant and stored for 24 h. On the left is a common, commercially available fondant which has already started to disintegrate. On the right is the new fondant which still keeps its shape and does not stick to the packaging foil

++ figure 5

The ultimate endurance test for the fondant icing: Freshly baked donuts were immediately placed, after icing, onto a tray and then packed into a film bag. The irregular surface on the right is intended to depict the dimensional stability. After 24 hours of storage, the common fondant icing has already disintegrated. As no moisture can escape, it settles on the tray. The fondant icing on the right does not stick to the packaging material nor does it lead to sticky fingers

++ figure 6

After 24 hours of storage, the donut, with the common fondant has significantly lost volume and also tastes slightly stale, while the donut on the right, with the new fondant, maintains its freshness

++ figure 7

List of ingredients: Sugar, emulsifiers, agar-agar, locust bean gum

is an indulgent pleasure beyond any 'nutritional correctness'.

In the last few years, suppliers of sugar and bakery ingredients have launched a number of new products, some of which have been very successful. The products have improved stability and react less aggressively to the moisture in the bakery items. However, all these properties are limited in terms of time. This is predominantly a problem for those bakers whose products have a prolonged shelf life and also rely on a visual appearance that triggers spontaneous purchasing decisions by the consumers. As an alternative, many producers of baked goods are now using fat-based glazes which are stable, but do not meet the sensory expectations of the customers.

Ulrich Gerhard, the internationally acclaimed technology consultant within the baking industry has worked meticulously for many months to solve these problems. Recently, he presented a new product that will be setting standards within the baking industry.

The product is a mixture of standardized sug-

ar and emulsifiers with agar agar and locust bean gum as gelling agents. A patented process with specific parameters turns the ingredients into a powder with specific properties. The powder, cooked with water, can be used as a base for any number of fondant icings which all have the same properties which are advantageous for artisan and industrial bakers.

- + The fondant hardens quickly on the bakery item, thus allowing for fast further processing.
- + The fondant is stable, i.e. it does not pick up any water from the bakery item or the air. It is therefore not susceptible to disintegration.
- + The surface is not sticky and therefore the icing does not adhere to fingers or packaging materials. This property is retained over several days and even weeks. Even after three months, the icing shows no difference when compared to a freshly applied fondant.
- + Nevertheless, the fondant displays a certain elasticity, preventing the icing chipping off under pressure or when stacked in packs.



++ figure 5

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++ figure 6



- + While a common fondant “dies” at 55°C, the new fondant product is stable up to 65-70°C and can be used without any problems. At higher temperatures, it only increases its viscosity.
- + The boiled base can be used with icing sugar to yield a fondant, but it is also possible to use it with many other sugars such as glucose syrup, invert sugar or even honey. For these, it is only the amount of added water that must be adapted.
- + Depending on the processing and ingredients, the color of the fondant icing can be varied from snow-white to off-white or even pepped-up with fruit juices.
- + The melting properties in the mouth can be increased by adding up to 10% of a common fondant without impairing the icing’s properties.
- + Minimum quantities of added fat will improve the shine.

Inventor Ulrich Gerhardt, who has already developed frying fats from sunflower oil with less than 1% trans-fatty acids and high-protein flours, is marketing the fondant mixture for industrial customers via his consultancy company. According to Gerhardt, artisan bakers will soon be able to order a fondant from a supplier of bakery ingredients. +++

++ figure 7

