

# GoldBake<sup>®</sup>

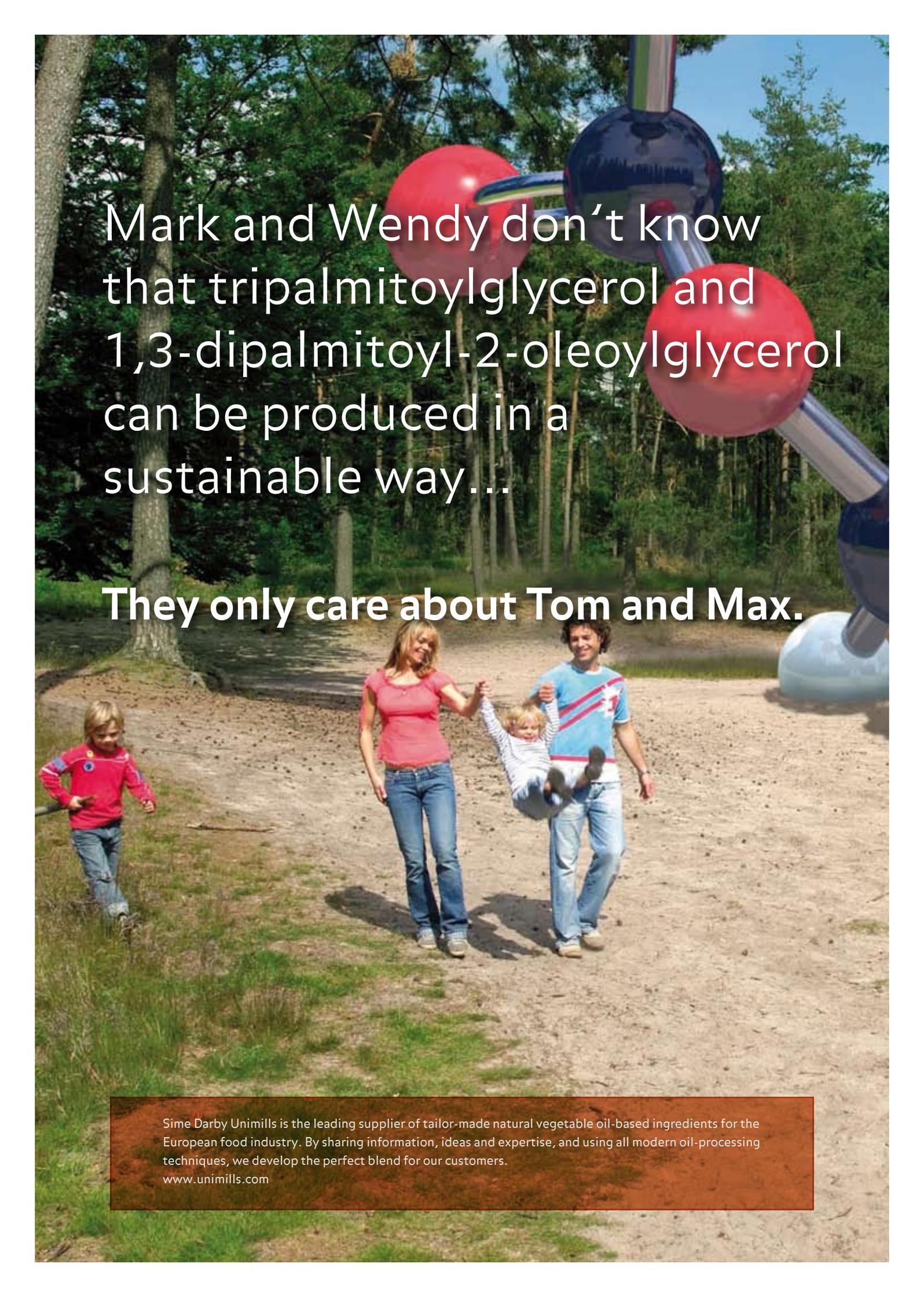
A TASTY BITE EVERY TIME



**DOUGH FATS**



A Sime Darby Plantation Company



Mark and Wendy don't know  
that tripalmitoylglycerol and  
1,3-dipalmitoyl-2-oleoylglycerol  
can be produced in a  
sustainable way...

**They only care about Tom and Max.**

Sime Darby Unimills is the leading supplier of tailor-made natural vegetable oil-based ingredients for the European food industry. By sharing information, ideas and expertise, and using all modern oil-processing techniques, we develop the perfect blend for our customers.  
[www.unimills.com](http://www.unimills.com)

## GoldBake® Dough fats

GoldBake® is our brand for dough fats used in the production of doughs for biscuits, pastries, cookies and cakes. At the very heart of baking, GoldBake® Dough fats are tailored to provide the desired dough structure so essential for guaranteeing that perfect taste and mouth feel you want in your product. They are available as liquid fats for pre-crystallization in your votator, or as pre-crystallized fats ready-to-use in dough. The pre-crystallized GoldBake® products have a smooth fluid consistency and crystal structure to give the right aeration and volume to the finished product every time. The new generation of innovative GoldBake® products meets the consumers' demands for healthy, tasty products with saturated fat levels as low as 25%.

# GoldBake®

A TASTY BITE EVERY TIME



How do GoldBake® Dough fats offer a tasty bite every time? Bakery products in different countries and cultures are amongst the most varying and complex in the food industry, characterized by a great variety of products, recipes and processes. Fat, a key ingredient, has a profound influence on the bite and taste.

In selecting the right fat for each product there are several aspects to consider: dough making, baking procedure, moulding equipment and required shelf life. The fat content can range from a few percent in bread, up to 35% in soft cookies. Hence, we customize bakery dough products to the needs of the bakery customers.



Jessica enjoys her healthy lifestyle with healthy food she trusts.

## Making the right selection

Ingredient selection is key to producing high quality products. Making an bakery product is all about using the right GoldBake® Dough fat. To meet consumer needs, bakery manufacturers are always looking for clever ways to improve the health characteristics of confectionery fats, and to improve product quality.

At the same time, they need to maintain the taste of products and build on the consumer experience by increasing flavour release, a smooth texture, and visual appeal. Their challenge is to offer innovative product ideas with added health benefits.

## GoldBake® Products

<b>GoldBake® 100 series</b>	Traditional dough fats
<b>GoldBake® 200 series</b>	Traditional pre-crystallized dough fats
<b>GoldBake® 300 series</b>	Premium dough fats with tailored nutritional or functional properties
<b>GoldBake® 400 series</b>	Premium pre-crystallized dough fats with tailored nutritional or functional properties
<b>GoldBake® 500 series</b>	Fat solutions for bakery doughs and bakery dough ingredients



Filling boxes with pre-crystallized dough fat.

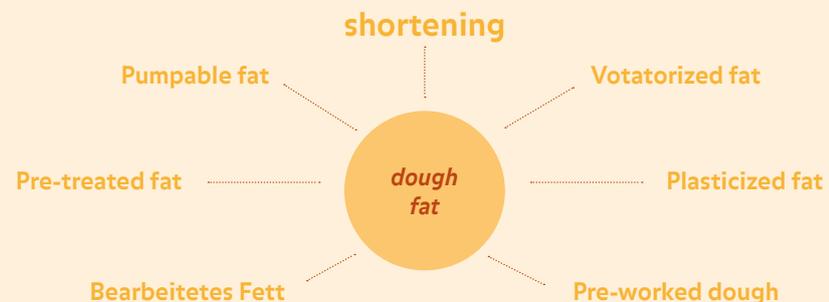
## Pre-Crystallization of dough fats

Large highly automated factories now produce most of the traditional fine pastry products, biscuits and cookies. A key requirement for efficient dough processing is consistent fat functionality with the right crystal structure in the solid phase. Certain applications, such as low fat biscuits, use liquid dough fats.

However, in most doughs, pre-crystallization of fat is required prior to dough making. GoldBake® Dough fats are available as liquid fats for pre-crystallization in your Kombinator or votator to get the right crystal structure. We also offers ready to-use pre-crystallized dough fats delivered in bulk. In addition, we offer pre-crystallized dough fats packed in boxes (10-25 kg).

The traditional names for pre-crystallized dough fat is shortening. By coating the dough gluten, the fat prevents gluten network growth, consequently 'shortening' the dough. As they have a stable fluid consistency at room temperature, it is possible to pump these dough fats. Controlling the crystallization produces smooth dough with all the desired characteristics.

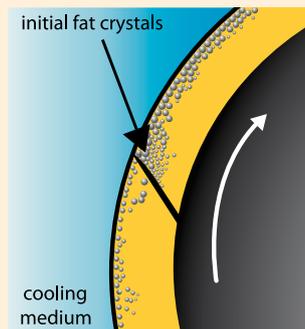
## Synonyms for pre-crystallized dough fats



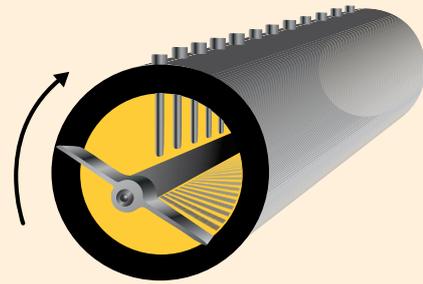
We are a leading expert in making pre-crystallized dough fats. After selecting the right fat blend, controlled crystallization is achieved using a specific combination of processes with well controlled specific time-temperature combinations.

The processes include cooled, scraped surface heat exchangers (often called SSHE or A-unit) and pin-rotors (often called C-unit). Finally, during the last maturation step the fine crystals are stabilized in the solid phase. Typically, the hardness is measured with a texture analyzer.

### Typical processes used to make a ready-to-use pre-crystallized dough fat with a smooth fluid consistency



Cooled and Scraped Surface heat Exchanger (also called SSHE or A-unit)



Pinrotor (also called C-unit)



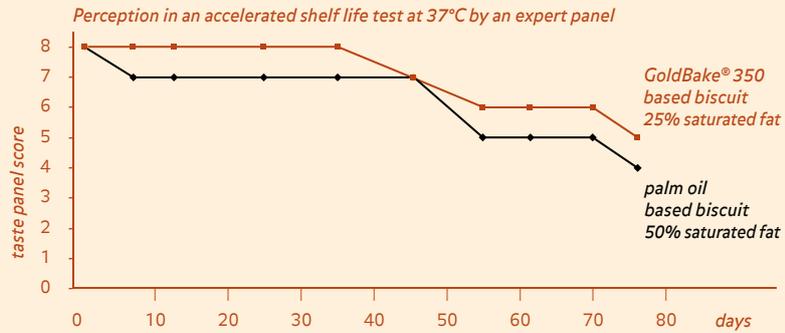
## Innovation

Our R&D team is continuously developing healthier and more functional dough fats. Our scientists are among the leading experts in the complex structure-property relationships of crystallization of dough fats. In addition, we cooperate with leading scientists in universities and research institutes. This fundamental knowledge is essential in creating innovative dough fats.

In the past, dairy butter and margarines were mainly used as dough fats. We were one of the first companies to make the change to liquid and pre-crystallized dough fats to give good functionality with lower costs. Over the last decades, our customers have successfully used our dough fats with typical saturated fat levels of 50-60%, now sold as the GoldBake® 100 and 200 products.

Our scientists have now developed a second generation dough fats, the GoldBake® 300 and 400 series. These have significant lower saturated fat levels without compromising on functionality or taste. As an example, the GoldBake® 350 is a liquid dough fat especially developed for biscuits. This product, based on patented technology, with a saturated fat-level as low as 25%, provides good processibility, allows optimal sensory perception and has an excellent shelf life.

**Comparing the tasty bite of traditional biscuits based on palm oil, to healthy biscuits made with GoldBake® 350**



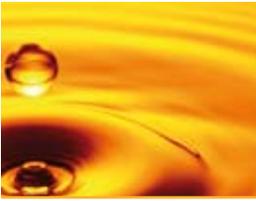
A typical accelerated shelf-life test at 37°C performed on the GoldBake® 350 product with only 25% saturated fat. In all trials, the biscuits based on GoldBake® 350 outperformed the reference biscuit made from refined palm oil with a typical saturated fat content of 50%.



## Enrich your dough with additives

At our production site we have extensive blending facilities to enrich your dough fat with additives such as natural colorants, flavours or lecithin. For instance, our Malaysian research scientists developed Vitolio®. As this product retains the naturally present  $\beta$ -carotene and tocopherols, there is no need to add chemical colorants or vitamins when used to produce spreads. Consequently you can include Vitolio® in your finished baked product without the need to label them on your package!

We are one of the leading producers of producing natural lecithin. Our scientists have in-depth knowledge about the functionality of lecithin in your dough fat and can help you to make the right selection.



## Our approach

Our reputation for high-quality dough fats is based on our in-depth knowledge and experience of processing oils and fats gained over almost 100 years. We believe that the best products are created through an approach of transparency and partnership. Transparency is a key element of success with the aim to innovate and manufacture ingredients effectively and responsibly.

At our site in Zwijndrecht, The Netherlands, we have all modern oil-processing techniques such as interesterification, double-fractionation and enzymatic re-arrangement. We are a leading producer of lecithin products modified by enzymatic hydrolysis or alcohol fractionation. We can add lecithin, flavours or natural colourants to the final oil blend. Sharing information, ideas and expertise, allows us to develop the perfect blend or recipe for our customers with shorter lead times and higher success rates.



Our responsibility is to ensure that each step from palm seedling to your product is sustainable.

## Strategic thrusts

First and foremost, consumers look for products they enjoy. However, today's consumers are increasingly aware of health and environmental issues. Their enjoyment of a product increasingly depends on the knowledge that the product has been produced in an ethical, environmentally friendly and sustainable way. They want to eat good food and feel good about the choices they make. The GoldBake® range delivers on this desire.

Most of our tropical raw materials come from sustainable sources: the estates of our Sime Darby plantations in Malaysia and Indonesia. Sime Darby, our parent company, is a founding member of the Roundtable on Sustainable Palm Oil (RSPO). We see it as our responsibility to source our raw materials from sustainable sources and to help all our customers to switch over to sustainable palm oil based products. As a company we believe that we can only have a successful future if we make sure it's a sustainable one.

We adhere to strict quality assurance standards, from raw material sources to final products. We have adopted various food standards such as HACCP, ISO, BRC and IFS.

Our strategic thrusts of Innovation and Responsibility are embedded in GoldBake® Dough fat formulations. By applying these thrusts to every aspect of our work, we are committed to meeting your needs and the needs of your customers, the consumers.



*Developing  
Sustainable  
Futures*

## Contact

If you would like to learn more about how you could use our expertise to successfully co-develop your products, please contact our sales department or product development experts:

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