



Soluble Solution

TIC Gums Introduces New Gum Blend for Fortified Bread

To borrow an analogy, TIC Gums has truly risen to the occasion with an innovative new gum blend designed for bread. Based on customer interest and general market trends, food scientists and the R&D team at TIC Gums recently developed Ticaloid® LC-SR5 to boost the soluble dietary fiber content of bread products.

Although fiber fortification of such items as snack bars, yogurts and beverages has been successful for years, the fortification of bread has, until now, proven difficult due to the delicate gluten structure that is either destroyed or weakened with the addition of soluble fiber at a functional dose. "Finding the right combination of soluble fiber was not easy," recalls Dr. Mar Nieto, senior principal scientist, of the sometimes painstaking process. "Hence, a lot of work was done in our lab to develop what we now call Ticaloid LC-SR5 that allows for a high loading of soluble fiber in the bread recipe."

The gum blend used for Ticaloid LC-SR5 ultimately is the right combination of the right grades of individual gums that impart their own important characteristics and work

together to allow for high loading level of soluble fiber. "This gum system was tested for its gluten compatibility and water absorption and was used in the bread with success," explains Nieto, adding that 20 percent of the flour was replaced with the gum blend and added cellulose powder.

Breads made with this new gum blend have a markedly higher content of soluble dietary fiber. Based on a recent marketplace evaluation, most commercial breads contain five to eight grams of total fiber per serving slice, compared to

the bread recipe incorporated with Ticaloid LC-SR5, which provides eight grams of soluble fiber and eight grams of insoluble fiber per serving. In addition, according to Nieto, lower doses can be used without any processing constraints.

High fiber bread formulated with Ticaloid LC-SR5 was the topic of a poster presentation Dr. Nieto gave at the World Grains Summit in September.

For more information or samples call TIC Gums' technical service hotline at **(800) 899-3953**.



Recipe inside!

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New President's Letter

Since our founding nearly a century ago, TIC Gums has built a reputation not only on the quality of our products and customer dedication, but on the willingness to look to the future and anticipate needs and trends. That has been the case since the development of the first hydrocolloids under our name in 1909, and it's still true today, as we continue to shape our vision for the company.



“It is TIC Gums’ goal to solve the texture and stabilization formulating challenges for food manufacturers in the U.S. and beyond.”

Our core vision is clear and straightforward: it is TIC Gums’ goal to solve the texture and stabilization formulating challenges for food manufacturers in the U.S. and beyond. Our mission is to be an integral part of all new development and reformulation occurring within the food industry.

New product development is evident across every sector of the industry, making it a dynamic and prolific time in food manufacturing history. Our role in such advances is to help our customers accelerate the timing and accuracy of their R&D cycles by having our product

development team adopt their texture and stabilization challenges.

To be realized, visions require action. We have created a Strategic Account Management program to better align our technical, sales and management staff with our customers. The program provides a forum to brainstorm ways our customers can expand their businesses, determine what role TIC Gums can play in helping achieve that growth, and outline an action plan to make it a reality.

To ensure our place as an integral R&D resource for our customers, our laboratory must have the best problem solving tools in the hydrocolloid industry. Our innovations team will expand upon our knowledge of basic hydrocolloid research in order to increase the functionality of hydrocolloids to solve more customer challenges or solve challenges more cost-effectively. We will then make that breakthrough technology available to our Applications team for end-use testing in our state-of-the-art pilot plant. We understand that it is the texture and stability of a finished food that matters most to our customers.

We will make our food scientists and customer service experts easily accessible to our customers. TIC Gums offers a technical hotline, technical sales force, and one-on-one access to our food technologists, as well as strategic account managers to assist our customers with all their needs. From basic formulation

questions to the most advanced R&D project, we will use our expertise in the synergies and incompatibilities of hydrocolloids to better understand and solve our customers’ formulating challenges.

Of course, our passion doesn’t end with completed formulations. After product development is complete, our ongoing supply of the texture and stabilization solution ensures our customers bring to market a consistent quality over the life of their product.

To support our global customers, TIC Gums is expanding our presence internationally. While our products have been distributed around the world for many years, the recent openings of Texture Innovation Company de Mexico and TIC Gums China are a testament to our global view.

I personally believe very strongly in the valuable role TIC Gums will play in our customers’ success. It is my accountability as the new President of TIC Gums to ensure that potential is realized by listening to our customers’ needs and aligning our resources accordingly. It is my accountability to make this vision a reality, and I look forward to the challenge.

A handwritten signature in black ink, appearing to read 'Greg Andon', with a long horizontal flourish extending to the right.

Greg Andon
President

TIC Gums China Reflects Company's Global Market Commitment

Paul Kwok



Helping to open up the TIC Gums presence in Asia—and simultaneously open new applications for innovative and efficient gum systems—Paul Kwok will be heading up technical sales for TIC Gums China. With TIC Gums president Greg Andon at the helm at TIC Gums China, Kwok will work to help customers in China best utilize gum systems that meet their needs for food and beverage products that offer top quality at the most economical bottom-line price for consumers.

In their initial efforts to evaluate the distinctive needs of the Chinese marketplace, the TIC Gums China team recently uncovered demand for lower-

cost pectin and locust bean gum. As a result, TIC Gums China is set to roll out two gum blends to replace traditional pectin and locust bean gum with equally functional and comparatively affordable benefits.

“It’s not enough to just have an office or presence in the region,” notes Andon. “Being successful in global markets requires an understanding of the diverse customer base and the environment in which they work and sell their own products. We look forward to bringing our legacy of customer-driven innovation that has worked for us so well in North America to Asia and within China.”



Fiber Fortified Bread

TIC Pretested® Ticaloid® LC-SR5 & Ticacel® 100-S

| INGREDIENTS | Bakers' % Control | 20% Flour Replacement SF/IF Recipe | True % SF/IF Recipe |
|------------------------|-------------------|------------------------------------|---------------------|
| <i>Sponge</i> | | | |
| Bread flour | 70.000 | 50.000 | 19.530 |
| Water | 51.430 | 51.430 | 20.089 |
| Vital wheat gluten | 8.000 | 8.000 | 3.124 |
| Yeast, compressed | 3.290 | 3.290 | 1.285 |
| SSL | 0.370 | 0.370 | 0.145 |
| Ascorbic acid | 0.006 | 0.006 | 0.002 |
| Extol 365 C | 0.022 | 0.022 | 0.009 |
| Ticaloid LC-SR5 | - | 10.000 | 3.906 |
| Ticacel 100-S | - | 10.000 | 3.906 |
| <i>Dough</i> | | | |
| Water | 51.430 | 51.430 | 20.089 |
| Bread flour | 30.000 | 30.000 | 11.718 |
| Ticacel 100-S | 20.000 | 10.000 | 3.906 |
| HFCS | 11.000 | 11.000 | 4.297 |
| Yeast, compressed | 3.210 | 3.210 | 1.254 |
| Honey | 3.000 | 3.000 | 1.172 |
| Salt | 2.750 | 2.750 | 1.074 |
| Vital wheat gluten | 1.000 | 1.000 | 0.391 |
| Ascorbic acid | 0.009 | 0.009 | 0.004 |
| Extol SSH | 0.500 | 0.500 | 0.195 |
| Ticaloid LC-SR5 | - | 10.000 | 3.906 |
| TOTAL | | | 100.000% |

Recipe

PROCEDURE

Sponge:

1. Activate the yeast.
2. Mix all sponge ingredients for two minutes on the first speed of the Hobart mixer. Desired temperature is 26°C (76°F).
3. Ferment three hours at 30.6°C (87°F) in a covered container.

Dough:

1. Place dough ingredients in bowl and mix for 30 seconds on first speed of Hobart mixer.
2. Add sponge and mix to optimum gluten development, which is approximately six minutes for the flour-fiber mix. Desired dough temperature is 26°C (79°F).
3. Floor Time—Allow the fully mixed dough to rest for 10 minutes at 30.5°C (87°F) in a covered container.
4. Immediate proof—remove from cabinet, divide into 524 g dough pieces, round and place in loaf pan.
5. Proof at 110°F and 81%RH to 98mm total height.
6. Bake 18 minutes at 435°F.

Developer's Notes

While breads with high levels of insoluble dietary fiber have been on the market for some time, there have been obstacles to developing breads that are fortified with both soluble and insoluble fiber. TIC Pretested® Ticaloid® LC-SR5 makes it possible to create such a fiber enhanced product. When used to replace up to 20% of the flour in a bread, Ticaloid LC-SR5 delivers approximately 4 grams of soluble dietary fiber and 4 grams of insoluble dietary fiber per slice (50 g).

TIC GUMS

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Getting to know Oscar Guerrero

Reflecting TIC Gums' increasingly global focus, the new Texture Innovation Company de México S. de R.L. de C.V. office has welcomed an experienced sales professional to head its efforts south of the U.S. border.

Oscar Guerrero is the regional sales manager for Texture Innovation Company de México and recently signed on with the company as it expands its production and presence throughout North and Central America. "My responsibilities include the establishment of a viable company in Mexico and a dependable sales channel for TIC Gums products, and servicing our customers by supplying them with high quality gums

and hydrocolloids and an impeccable technical and problem-solving service," explains Oscar, who adds that prospecting new business opportunities is another core component of his work and vision. Oscar is helped in his efforts by Terry Van Winkle, vice president of sales of TIC Gums.

Prior to joining TIC Gums and becoming the face of the company in Mexico, Oscar was a marketing manager for gums, hydrocolloids and emulsifiers for a gum company and served as a product manager of hydrocolloids for an ingredient distributor. A food technologist by education and training, Oscar earned a bachelor of science degree in biochemical engineering.

In his spare time, Oscar enjoys spending time with his wife, children and extended family and keeps fit by jogging, bicycling and horseback riding. He is also a film and music aficionado.

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