

ULTRALEC® FOR TORTILLAS

A BETTER TORTILLA

Flour tortillas are one of the most popular and successful products in the baking industry (Hillenbrand 2006).

Tortillas have found their place in the American mainstream diet, where they now serve as substitutes for traditional breads in such popular fare as hot dogs, lasagna, pitas, sandwiches and pizza. Tortillas can be used to hold a variety of fillings, used as tasty food scoops, toasted and topped with salad, or served hot and plain (Tortilla Industry Association 2009).

Texture of tortillas is a major criteria that consumers use to judge the product's overall quality. Tortillas should stay flexible and rollable without breaking when folded and be soft without sticking together.

ADM LECITHIN

With the growing trend towards reduced-fat bakery products, food formulators are faced with a new challenge: creating low-fat baked goods that retain the favorable characteristics of their full-fat equivalents. One way to meet the challenge is by using an ingredient that can help restore many of these desired properties – lecithin.

PROBLEMS CAUSED BY FAT REMOVAL

- Lowered lubricity, due primarily to the decreased availability of the fat throughout the mix
- Doughs that are hard to machine because they stick to the equipment
- Moisture migration that leaves baked products with a dry texture and mouth feel
- Poor aeration and weakened cell structure

Many of the problems associated with reduced-fat products can be solved by incorporating lecithin.

KEY BENEFITS

- Improves rollability
- Reduces dough stickiness
- Increases shelf life and product quality
- Less downtime
- Reduces brittleness



Ultralec® – ADM's exclusive, ultrafiltered deoiled lecithin is used in hydrophilic instantizing applications, and it provides excellent emulsification properties in reduced fat and flavor sensitive applications.

Deoiled lecithin is convenient to use because it is a dry product. By offering two granulation sizes, Ultralec P powder and Ultralec F fine granule, ADM gives you the flexibility needed for a wide range of applications.

In two tests conducted by American Institute of Baking measuring elasticity, it was shown that Ultralec P at low inclusion levels (0.5%) enhanced dough texture better than the control over one to ten days. In the Force to Break test, the tortilla with 0.5% Ultralec required the most force to break demonstrating how Ultralec reduces brittleness. The Distance to Break the tortilla with 0.5% Ultralec stretched further without breaking. A 0.5% inclusion of Ultralec delivers a tortilla that has good elasticity and is still moist.

Ask our technical staff to help create the right formulation for your product, or use our facilities to formulate new products or test new concepts before making capital investments. We have American Institute of Baking Master Baker expertise on staff to handle challenges you bring us. Or, if necessary, we may conduct trials at your plants—a service we provide with our compliments. When you buy ADM ingredients for your tortillas, you get more than high-quality products; you also get flexible, customized solutions and world-class technical support.

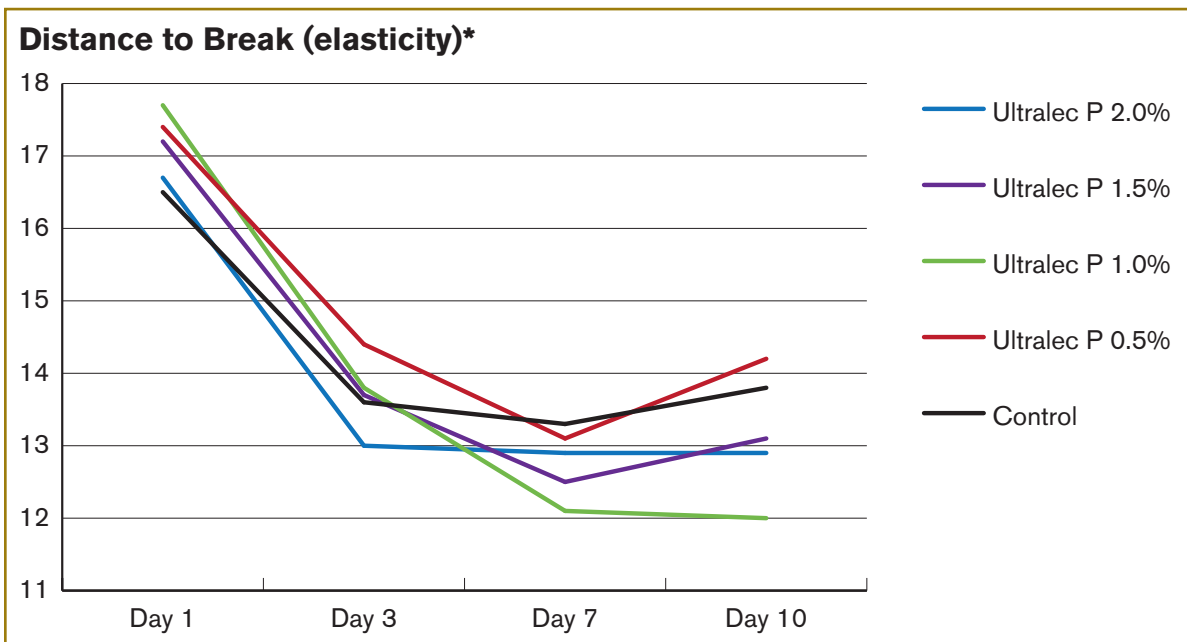
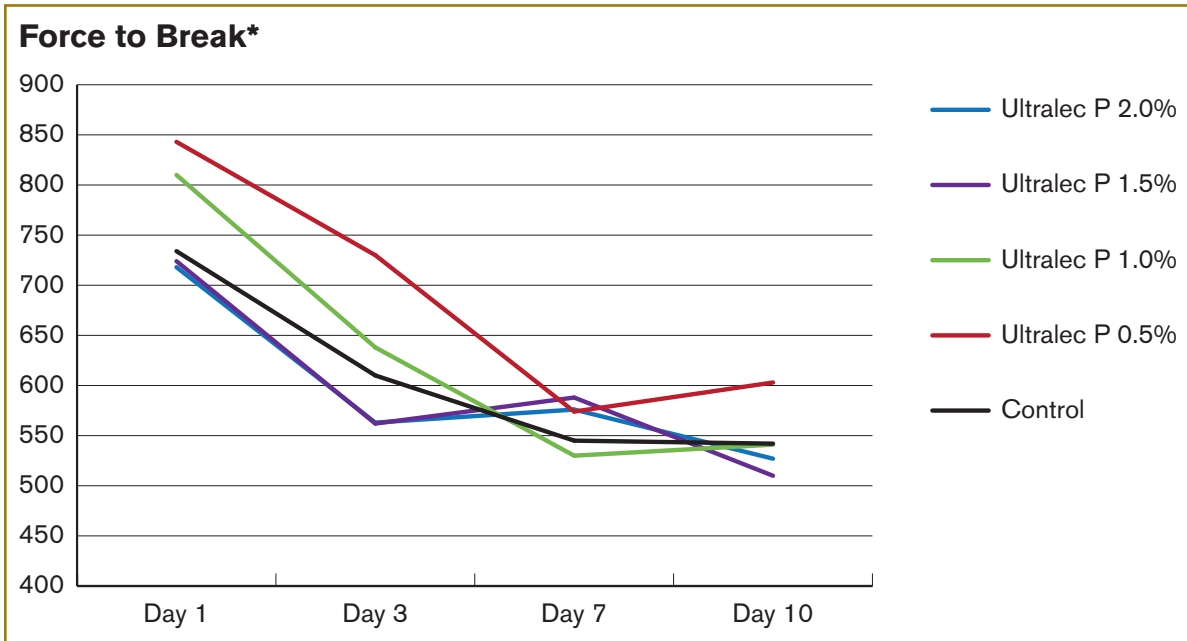


For customers around the world, ADM draws on its resources—its people, products, and market perspective—to help them meet today's consumer demands and envision tomorrow's needs.

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*Source: American Institute of Baking

DEOILED LECITHINS

Product	Typical Analyses		
ULTRA-FILTERED DEOILED LECITHINS			
Ultralec® P	AI, % 97 min. H2O, % 1.0 max.	Color: Light gold Form: Powder	Viscosity: N/A
Ultralec F	AI, % 97 min. H2O, % 1.0 max.	Color: Light Gold Form: Fine granules	Viscosity: N/A

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