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# Middle East Food

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Serving the Food, Beverage, Ingredients & Packaging Sectors in the Middle East & North Africa - Since 1985  
تخدم قطاعات المأكولات والمشروبات الخفيفة والمكونات والتوضيب في الشرق الأوسط وشمال أفريقيا - منذ ١٩٨٥



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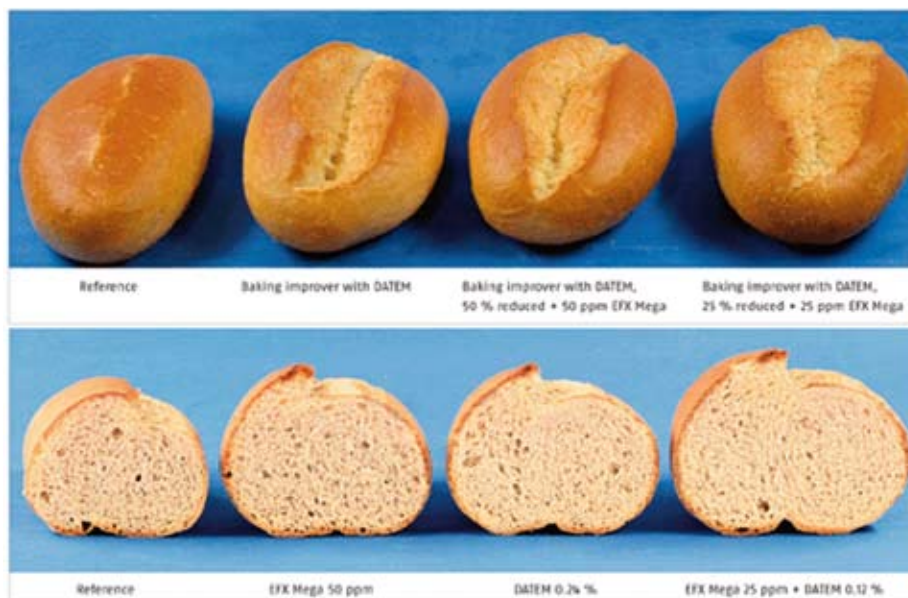
## Mühlenchemie Develops an Emulsifier Booster

Mühlenchemie GmbH & Co. KG has developed a new flour improvement enzyme which makes use of the natural potential of emulsifying substances in wheat flours. New Alphamalt EFX Mega increases fermentation tolerance and the stability of the dough and achieves a “mega volume” in the baked goods. Optimizing the emulsifiers and lipids naturally present in the flour makes it possible to reduce the amount of synthetic products added. Fluctuations in flour quality are made up for nevertheless, and production costs are reduced.

Mühlenchemie’s new Alphamalt EFX Mega makes use of the natural baking potential of the lipids in wheat flour. For a long time these properties were underestimated. Scientific investigations show that some lipids (fat-like substances) have a positive effect on baking properties whereas others tend to have a negative effect on the resulting products. With the development of Alphamalt EFX Mega Mühlenchemie has succeeded in putting these scientific findings to practical use in flour standardization.

Alphamalt EFX Mega is an esterase complex that takes the strongly heterogeneous nature of the wheat lipids in respect of polarity into account, and also their interaction with other constituents of wheat flour which strongly influence the volume of the bread.

The product’s selected and standardized esterase activities have the effect of splitting the non-polar lipids naturally present in the flour into mono- and diglycerides; at the same time, existing polar lipids such as phospholipids and glycolipids are converted into more strongly polar



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and thus more hydrophilic substances. This results in a noticeable overall shift towards the baking-active polar lipid classes with emulsifier-like structures and dough-stabilizing effects.

These are familiar from the emulsifier DATEM, which is often used in baking. Alphamalt EFX Mega achieves similar results to DATEM. Because of their synergistic effects a combination of DATEM and Alphamalt EFX Mega results in even larger baked volumes. That makes Alphamalt EFX Mega an economical and user-friendly flour improver or constituent of baking improvers. It is always a good choice when it comes to compensating for fluctuating flour qualities or optimizing or extending the uses of DATEM.

Mühlenchemie GmbH & Co. KG is one of the world’s leading companies in the flour treatment industry. Its key competence lies in solutions for flour standardization, flour improvement and flour fortification – from classic flour treatment to con-

centrates for ready-mixed flours. Mühlenchemie exports its products to over 120 countries and maintains close relations with more than 1,000 mills around the globe. At the foreign affiliates in Mexico, Singapore, India, China, Russia and Spain a team of experts supports mills on the spot and offers individual solutions to ensure optimum flour quality. For this, Mühlenchemie has developed enzyme systems, flour maturing and oxidizing agents, bromate replacers, emulsifiers, vitamin and mineral premixes and functional systems for ready-mixed and composite flours.

Mühlenchemie standardizes over 50 million tons of wheat a year. At the Technology Centre in Ahrensburg, near Hamburg, a team of research scientists and applications technologists works on innovations for the future. It is here that pioneering solutions in the field of enzyme technology are devised for bread and other baked goods. They include the well-known preparations Alphamalt, Powerzym, Sternzym, Pastazym and Tigerzym. ■

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