

## ARTEEZYME TG



### Product concept

A unique enzyme that acts on wheat proteins strengthening the matrix and improving flour quality

### Benefits

Flour improvement, dough stabilization, also in difficult situation like freezing. Improvements in puff pastry.

### Technology

New technology acting specifically on wheat proteins

## Improving the quality of wheat proteins: a key to better products

Arteezyme TG acts on gluten and stabilizes the protein matrix

Arteezyme TG is a unique and innovative enzyme that acts on the wheat gluten proteins reinforcing the intra-molecular and inter-molecular bonds. The nature of the enzymatic reactions promoted and catalyzed by Arteezyme TG are, although, completely different from that typical of oxydising enzymes (like Arteezyme GO). Arteezyme TG catalyze the formation of strong covalent bonds cross-linking amino-acids residues and strengthening the gluten matrix. This is a different and alternative route to protein strengthening to the one possible trough oxidative enzymes (that promote the oxidation of free SH groups to S-S

linkages). Working on different substrates and on different reactions, the two enzymes (TG and GO) might be used together and might exhibit strong synergistic action. Arteezyme TG is completely destroyed by normal oven temperatures.

Arteezyme GO has been successfully applied to:

- Frozen bakery products, either bread, croissant or puff pastry. The ability of Arteezyme TG to work on the dough and repair damages to the gluten matrix makes it an extremely well



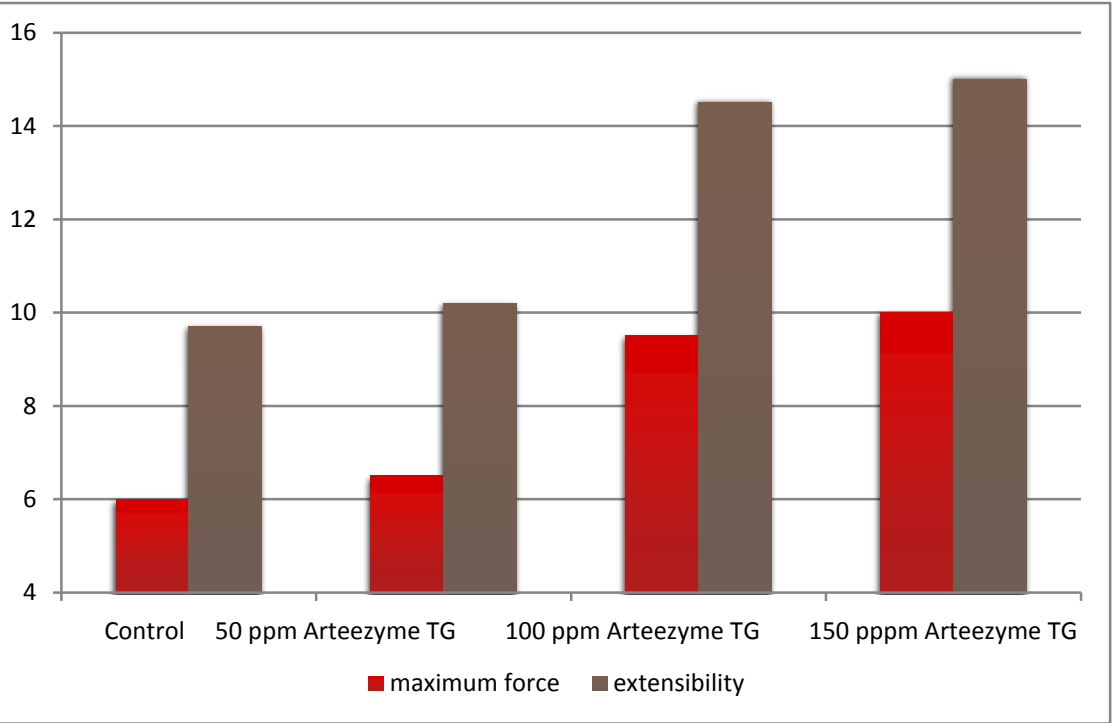
suited enzyme in frozen dough. In frozen bread strong, positive, synergy has been seen with Arteezyme GAM

- Puff pastry: the strengthening ability of Arteezyme GAM TG is particularly useful in puff pastry





With ARTEEZYME PHL cakes, sponges and muffins will be lighter, softer, more appetizing

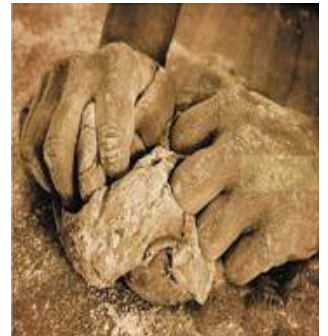


The photo below shows the effect of 100 ppm of Arteezyme TG on a volume. (On the right the control product and on the left the product baked with sought-after TG).



flour properties is outlined in the two graphs printed on this page. Arteezyme TG improves the stability of the flour (see the Farinograh stability below) and also increase the gluten matrix strength (see the above graph showing the effects as measured by an Extensigraph). Arteezyme TG can be added to the flour, after milling. Please note that Arteezyme TG effects are compounded by the possible time-of-reaction.

- Flour quality improvement. Arteezyme ability to improve



### farinograh stability

