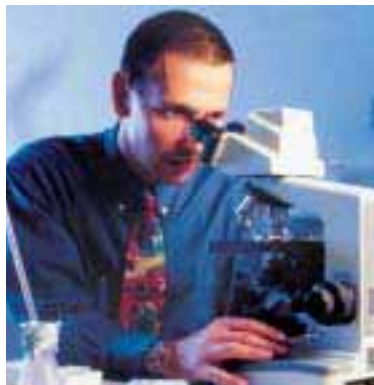


INTERVIEW

“There's real power in POWERZYM”



An interview with Dr. Lutz Popper

One of the latest new products for the milling industry is Powerzym 6000. There is now considerable experience of its use in Germany and abroad. Inter-estingly, Powerzym 6000 was found in practice to have a much wider range of uses than originally thought. BestFlours put some questions to Dr. Lutz Popper.

BestFlours: Dr. Popper, we have heard some interesting news about the practical use of Powerzym 6000. What exactly is new?

LP: Powerzym 6000 is a compound of α -amylase and hemicellulases. We initially intended it for use chiefly in gluten-rich and strong flours and in baking improvers containing emulsifiers. But in fact Powerzym 6000 has a much wider range of applications. That has emerged from the first reports on experience with it in other countries.

BestFlours: What exactly does this experience show?

LP: Reports are coming in from Germany and France that very favourable properties for bread rolls and baguettes can be achieved with the low-enzyme wheat from the 2003 harvest. That also applies to Australian wheat in the no-time dough process.

Powerzym 6000 has a similarly positive effect in mixtures of Canadian CWRS and US-American DNS wheat for extremely over-fermented doughs with a small amount of added water and in wheat flour with very short gluten properties – such as we find in Argentina and Uruguay.

BestFlours: Does that mean there is more power in Powerzym than you thought?

LP: You might put it that way, yes.

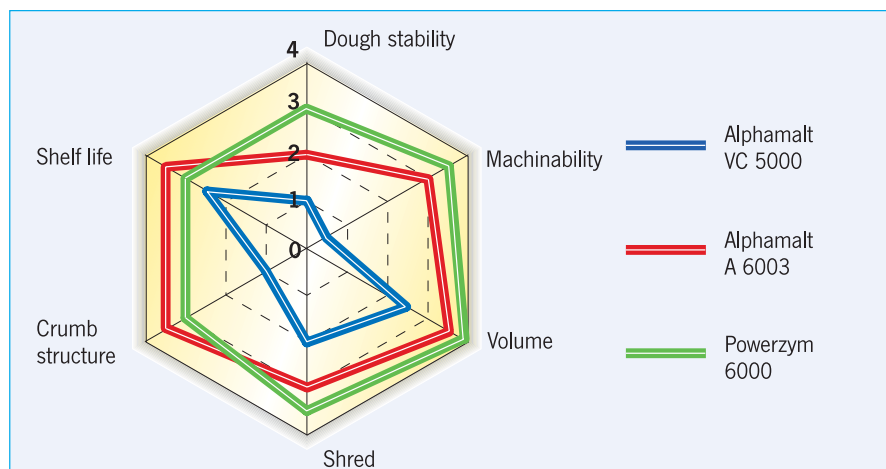
BestFlours: Okay; then please tell us again, in this context, what the special properties of Powerzym 6000 are.

LP: We have drawn a diagram (see below) that illustrates the benefits of the product very well. It shows the special properties of Powerzym 6000 as compared to pure fungal α -amylase, like Alphamalt VC 5000, and compared to our successful and versatile enzyme compound Alphamalt A 6003. You can see that Powerzym 6000 is definitely superior with regard to volume yield. Only in respect of shelf life, in other words the time before the crumb goes

stale, is it very slightly inferior to Alphamalt A 6003. Our tip: to achieve the optimum shelf life of up to ten days, use a combination of Powerzym 6000 and Alphamalt F 9023.

We recommend POWERZYM 6000 for:

- Gluten-rich flours
- Flours with short but strong gluten
- Flours with low enzymatic activity, i.e. high falling numbers (typically over 350 s)
- Short dough processes with high dough yields and long processes with low dough yields



Properties of Powerzym 6000 as compared to Alphamalt VC (5000 α -amylase) and the amylase/hemicellulase compound Alphamalt A 6003

Shred, volume and machinability were determined in the baking test for bread rolls; crumb structure, shelf life and dough stability were ascertained in the baking test for sandwich slices. All the flours used had been treated with ascorbic acid. All the enzymes were used at 100 ppm (flour base).