

Mixolab® System : 2008  
Europain Innovation



Define the exact nature  
of your flours



Control your process  
efficiently



Guarantee constant  
milling quality



The Infraneo®, the  
Mixolab® TIME asset

ECHANTILLON	
PARAMETRES	RESULTATS
PROTEINE	13.44
HUMIDITE	13
TAUX DE CENDRES	0.57
ZELENY	48

## The Mixolab® Profiler wins the 2008 Europain Innovation Trophy

Exhibiting in the 2008 edition of this international show, CHOPIN Technologies presented the Infraneo® and the Mixolab® System. These two appliances were awarded the Innovation Europain 2008 label.

The Mixolab® Profiler, a new function of the Mixolab® System also won the Europain Trophy 2008, awarded by a jury of international professionals. This prize rewards the avant-gardist nature of this new tool designed to optimize and control the quality of milled flours and the second transformation industry.



## Innovation

# Leading edge analyses for all

CHOPIN Technologies has added a new function to the Mixolab® System, the Mixolab® Profiler, which was awarded the Europain Innovation Trophy 2008.

Integrated from this year into all new appliances, the Mixolab® Profiler simplifies the interpretation of the standard analysis results by a graphical display of the 6 flour quality

factors indexes; water absorption, mixing, gluten, viscosity, amylases and retrogradation. It is the ideal tool to control the quality of raw materials, as it is based on an exhaustive analysis of the flour, its constituents and their interactions.

The Mixolab® Profiler thus completes the 2 leading functions of the Mixolab® System:

- The Mixolab® Standard, for an in-depth standard analysis of your products and the development of many forecast models.

- The Mixolab® Simulator, which permits graphic data to be obtained on the flour (water absorption, mixing

## “ The Mixolab® Profiler makes interpreting standard analysis results easier ”

time, stability and weakening).

The Mixolab® System can adapt to all requirements; from R&D with the Mixolab® Standard, to routine control with the Mixolab® Profiler. The Mixolab® Simulator enables you to maintain a link with the other analysis methods you used previously or still use with some of your partners.

CHOPIN Technologies innovates with the Mixolab® System by providing a fine analysis of the flour properties (to improve it for example), by developing forecast models and above all complete and simple quality control that is interpreted on a single appliance. ■

# Define all of the characteristics of your flours to suit their final use

## What is the Mixolab® Profiler used for?

The Mixolab® Profiler is a tool for interpreting the graph curve obtained using the Mixolab® Standard. It allows the curve to be translated into a series of 6 ratings, from 0 to 9, which define: the water absorption capacity, the mixing behavior, the gluten strength, the viscosity when hot, the amylasic activity and retrogradation. These ratings are displayed graphically to allow a complete min./max. quality profile to be made of the flour studied (Fig. 1).

## How can I use the Mixolab® Profiler to select my flour raw material?

The Mixolab® Profiler is supplied with a library of standard profiles (Fig. 2) that you can use. You can also create the standard profile of the flour most-suited to your process. Simply analyze the mean profile of about ten samples of flour that are satisfactory for your lines, define the acceptable limits and enter this into the software.

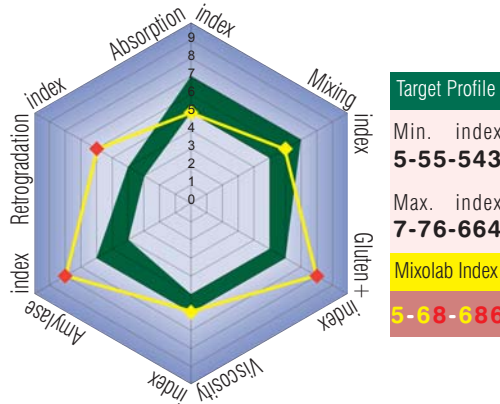


Fig.1: defining the characteristics of a flour with the Mixolab® Profiler  
in green = the standard profile selected  
in yellow = the parameters which comply with the profile  
in red = the parameters out of tolerance

## How can I use the Mixolab® Profiler to improve the quality of my flour?

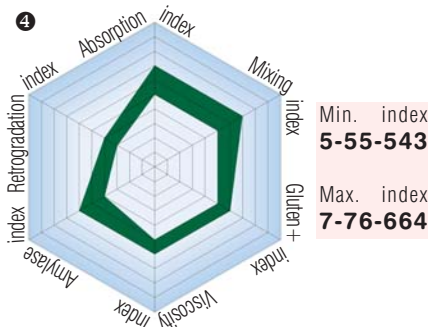
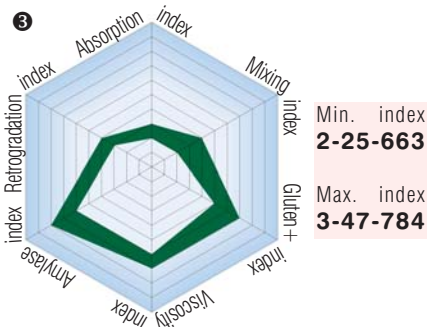
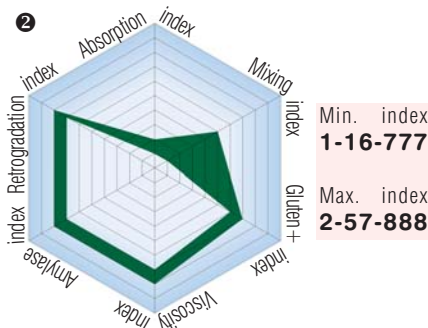
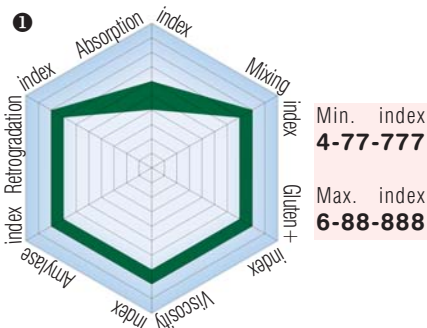
At the same time as the curve is developed on the Mixolab® Standard, the corresponding radar image is displayed on the computer screen. In a glance you know if the flour meets the specifications. If one of the parameters is out of tolerance (Fig. 1) as

soon as the test is complete you can access the Mixolab® Guide, which will provide you with the probable causes of this anomaly and provide suggestions as to how to improve it. You can also check in the library if this flour matches a different profile (another customer for example) to enable you to use it elsewhere in this case.

## I already have a Mixolab®, how can I benefit from the Mixolab® Profiler?

This new function is supplied free to current users. Simply ask your distributor or CHOPIN Technologies directly for the new software for the Mixolab® Profiler. For new users, it is even simpler as from June 2008, the Mixolab® Profiler is automatically integrated into the Mixolab® System software. ■

Fig.2: examples of standard profiles ① Pizza ② Pastry ③ Biscuit ④ Viennese pastry



## Damaged starch

Control the starch  
consistent mill  
The ALICORP S.A. m

**A**licorp is the foremost mill in Peru with over 26,000 tones of wheat milled a month and two production sites. The company supplies over 60% of the national flour production.

Since October 2007, Alicorp's quality department has been using the SDmatic® to measure the damaged starch. The purpose of this measurement is to improve the control of flours for making bread (baguette type and mould bread type).

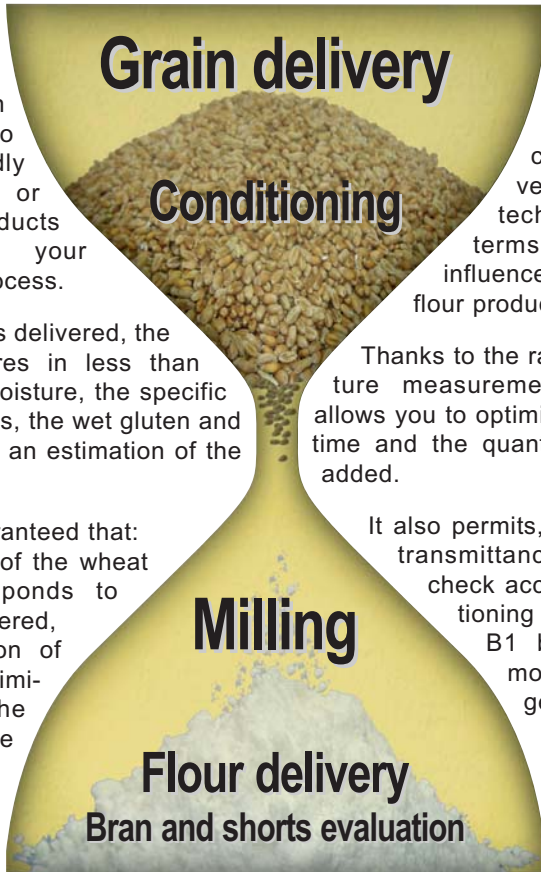
# Control all of the major steps of your process efficiently

The Infraneo® is the NIR solution which allows you to control rapidly whole grains or powdery products throughout your manufacturing process.

When the wheat is delivered, the Infraneo® measures in less than one minute the moisture, the specific weigh, the proteins, the wet gluten and provides you with an estimation of the W index.

You are thus guaranteed that:

- the quality des of the wheat delivered corresponds to that you have ordered,
- the conservation of the wheat is optimized during the entire storage period,
- the wheat will be placed in the



correct silos, - your mixtures will be optimized.

You know that the conditioning step is very important, both technically and in terms of cost. It also influences the quality of the flour produced.

Thanks to the rapid accurate moisture measurement, the Infraneo® allows you to optimize the conditioning time and the quantity of water to be added.

It also permits, thanks to the NIR transmittance technology, to check accurately your conditioning when milling before B1 by measuring the moisture of the packaged wheat.

With the guarantee that your conditioning is optimized

and uniform, you bring together the ideal conditions for good milling.

Thanks to precise information on the ash content in the passing flours, the Infraneo® ensures optimum setting of your mill and allows you to comply with the current regulations. You obtain optimum output while conserving good quality flour.

After milling, within 10 seconds you have the image of the quality of your flours, and can decide if they are compliant before delivery.

You can also evaluate quickly and efficiently the milling co-products as the Infraneo® measures the moisture, ashes, proteins, cellulose and starch on the bran and shorts.

As the analysis of the grains and flours is permanently developing, CHOPIN Technologies provides you with its commitment to monitor the performances of your Infraneo® and to adapt it to your new requirements throughout its working life. ■

## Arch damage to ensure ing quality mill in Peru

The SDmatic® allows them:

- to control their cylinder machines,
- to ensure consistent quality of their flours,
- to satisfy the various customer specifications,
- to optimize the water absorption of their flours.

Previously, the laboratory used the enzyme method. The test took a long time, was very temperature sensitive and caused problems when samples were

deep frozen.

The SDmatic® is today a key analyzer of the Alicorp laboratory: 16 tests are carried out daily.

Tania Milla, one of the Alicorp laboratory analysts and Carlos Huete, Quality Manager confirm this: "the test results using the SDmatic® are much more consistent. The rapidity of the analyses allows us to carry out many more tests than in the past."



The main advantages of the SDmatic® for Alicorp are:

- it is quick and easy to use,
- we have the guarantee of using a standardized method (AACC 76-33 and ICC n° 172).

"We wouldn't hesitate to recommend the SDmatic®. We especially appreciate its accuracy and repeatability." ■

# The Infraneo<sup>®</sup>, the Mixolab<sup>®</sup> TIME asset

The Mixolab<sup>®</sup> is undoubtedly one of the most complete tools for analyzing flours, however its performances may be even further enhanced by combining it with the Infraneo<sup>®</sup>.

The Infraneo<sup>®</sup> is the near infrared analyzer of CHOPIN Technologies. It makes simple and precise analyses of the constituents of the flour (Water content, Proteins, Ash, Wet Gluten, Damaged Starch, ...) in just 10 seconds.

**“ You will save 20%  
of the total analysis  
time ”**

By associating it to the Mixolab<sup>®</sup>, you will save 20% of the total analysis time as you will benefit from the calibration of the "Water Absorption" and "Water Content" of the Infraneo<sup>®</sup> to hydrate the flour and thus avoid the Mixolab<sup>®</sup> calibration phase in over 75% of cases.

You may also communicate and exchange information on this "water absorption" calibration with other Mixolab<sup>®</sup> users or even Farinograph<sup>®</sup> users, as the target consistency of 1.1 Nm of the Mixolab<sup>®</sup> also corresponds to the 500 UB used on the Farinograph<sup>®</sup>.

Lastly, the measurements obtained with the Infraneo<sup>®</sup> are the perfect complement to your Mixolab<sup>®</sup> analyses, as you save time whilst obtaining more complete information.

Let us take an example:

You receive a flour that hydrates much more than usual. The Infraneo<sup>®</sup> indicates that the "Proteins", "Water Content" and "Ashes" are well within the mean values: you may therefore suppose that the flour contains a lot of damaged starch. This will be confirmed by the Mixolab<sup>®</sup> curve ... and could also have been confirmed with a lot more problems on the production line if these controls were not carried out beforehand.

The possible interactions between the infrared methods and the rheological methods are considerable. CHOPIN Technologies masters these techniques and is therefore able to offer you a wider range of technical solutions and advice so that you always get the best out of your equipment. ■

Your CHOPIN Technologies representative:

## events

- >> 19th Annual IAOM Mideast & Africa District Conference & Expo, Arusha, TANZANIA
- >> 56th Australian cereal chemistry conference, AUSTRALIA
- >> AACC International Meeting, Hawaii, USA
- >> ALIM, VENEZUELA
- >> Annual IAOM Eurasia District Conference & Expo, Bucarest, ROMANIA
- >> Asia Food Expo, PHILIPPINES
- >> Journée France Export Céréales, Dar-el-Beida, MOROCCO
- >> Journée France Export Céréales, Le Caire, EGYPT
- >> Journée France Export Céréales, Alger, ALGERIA
- >> Journée France Export Céréales, Tunis, TUNISIA
- >> Journée France Export Céréales, Tripoli, LEBANON
- >> Journées Techniques des Industries Céréalières, Paris, FRANCE
- >> Journées Techniques Espagnoles, Lleida, SPAIN
- >> Tecno Fida : 9<sup>o</sup> Exposición Internacional de Tecnología Alimentaria, Aditivos e Ingredientes, Buenos Aires, ARGENTINE

Check out all the shows where CHOPIN Technologies will be present in 2008 at [www.chopin.fr](http://www.chopin.fr)

## publications

[Collaborative study concerned with measuring damaged starch using an amperometric method](#)

By A. Dubat, CHOPIN Technologies - November 2007 - *Cereal Foods World*, Vol.52, No.6

[Measurement of water absorption rate in flours and rheological characteristics of dough during kneading](#)

By J. Le Brun, Arvalis Institut du Végétal - S. Geoffroy, A. Dubat, CHOPIN Technologies - G. Sinnave, Walloon Agricultural Research Centre (CRA-W) Gembloux - 2008 - *Tecnica Molitoria International*

[The AlveoConsistograph Handbook, 2nd Ed](#)

By M. Dubois, A. Dubat, B. Launay - June 2008 - AACC International

[ENTREVISTA CON ARNAUD DUBAT – Creador del Mixolab](#)

June 2008 - *Panera*

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