

ProDough Adagio™ F

Time Reduction in the Production of Yeast-Based Dry Breadcrumbs



Breadcrumbs are increasingly used to coat food products. They hold moisture during frying and give a crunchy, golden brown texture, making the food more attractive. Also, they are used as binding agents in different meat applications, as carriers for flavours and colours, etc.

Bread for breadcrumbs is generally produced with yeast, which requires time, good temperature and good humidity conditions in order to make the desired dough rise.

Galactic developed **ProDough Adagio™ F**, a natural ingredient, which is used in combination with sodium bicarbonate to significantly speed up the overall process time.

Advantages

- No leavening time
- No dilution of yeast in water
- Good rising of the dough
- No impact on cooking nor drying processes
- No change in the colour, volume, taste nor crunchiness

Galactic carried out trials with the following recipes.

| Ingredients | Control (%) | Trial (%) |
|---------------------------|-------------|-------------|
| Flour | 63.12 | 64.77 |
| Yeast | 2.69 | - |
| Sodium bicarbonate | - | 0.38 |
| ProDough Adagio™ F | - | 0.66 |
| Salt | 0.90 | 0.90 |
| Sunflower oil | 0.65 | 0.65 |
| Tap water | 32.64 | 32.64 |
| Total | 100.00 | 100.00 |

Process

(with yeast)

- Dilute the yeast in water.
- Prepare the dough.
- Let the dough rise for 30 minutes at 37-40 °C with RH 90%.
- Cook at 190 °C for 20 minutes.
- Dry at 150 °C for 10-15 minutes.
- Crunch the dry pieces to obtain breadcrumbs.

Process

(with **ProDough Adagio™ F** and sodium bicarbonate)

- **No need to dilute the yeast in water.**
- Prepare the dough.
- **No need to let the dough rise.**
- Cook at 190 °C for 20 minutes.
- Dry at 150 °C for 10-15 minutes.
- Crunch the dry pieces to obtain breadcrumbs.

Results

Yeast was replaced by a combination of **ProDough Adagio™ F** and sodium bicarbonate. There was no need to dilute the yeast in water before dough production and to wait for the dough to rise. These two factors combined enable therefore manufacturers to significantly reduce their production time.

Our tests also showed that the combination of **ProDough Adagio™ F** and sodium bicarbonate did not have an impact on cooking nor drying processes, meaning that the colour, the volume, the taste and the crunchiness did not change compared to yeast-based products.

The recommended dosage is 0.66% of **ProDough Adagio™** combined with 0.38% of sodium bicarbonate.

Contact us for:

- Samples
- Technical assistance
- Trials

Galactic Innovation Campus

Tel.: +32 (0)2 332 14 00

Mail: sales@lactic.com

Web: www.lactic.com

References

The tests were run by a team of engineers specialised in the food sector. They were conducted in Galactic's laboratories (Galactic Innovation Campus) located in Brussels. Our market development team remains at your disposal for further information, trials with your formulations, etc.

Since 1994 Galactic has become a natural solution provider and one of the world leaders in biotechnology serving the food, feed, personal & health care, and industrial markets. Based on its valuable experience in the fermentation of lactic acid and in the production of its derivatives, Galactic continuously develops sustainable, innovative and health-friendly solutions in the field of food safety, nutrition and green chemistry.

