# Intens

## What is your texture?

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*Reliable partners in innovation*

# Texture is key to consumer satisfaction

Puratos has developed a specific approach to measure and optimize texture of bakery products in all their aspects:

- from the initial feel of a product that is soft and resilient;
- to the enjoyment of a moist crumb and short bite;
- and the maintaining of freshness in breads and rolls

## Puratos' expertise in texture solutions

Puratos continuously looks for the latest development in enzymes and emulsifiers via long term research and collaboration with the top universities. Our production facility in Andenne, Belgium, allows us to custom produce the exact enzymes and emulsifiers that we need to deliver the texture we are looking for.

We define the optimal synergy of these ingredients to respond to your challenges and needs. This is made possible thanks to a highly trained R&D and their in-depth knowledge of the application, recipe, baking process and formulas.

Within our approach, we combine all this with scientific texture measurements and consumer insights which enables you to obtain the desired texture of your baked goods. So what is your texture?

# Intens Modular Solutions

To take advantage of changing consumer trends, more than ever industrial bakers must differentiate their bakery products. Speed and flexibility have never been more essential for product development and production teams. The right choice of ingredients can be a major contribution to your bottom line.

## INTENS modular solutions

- Optimize individual characteristics of the dough or the final bread.
- Based on the latest enzymes research and development

## INTENS allows you to:

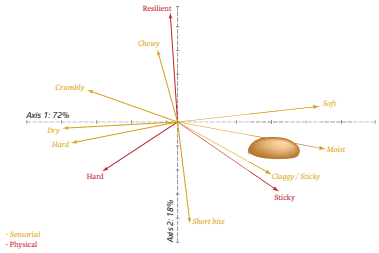
- Add on top of an existing recipe to intensify a specific functionality without re-engineering the entire formula
- Differentiate the texture of your products in terms of freshness, resilience, short bite ...
- Combine modules to custom create your ideal solution
- Apply to a wide range of bakery applications: sliced breads, buns, flat breads...

Changes in the recipes may be necessary.

# Intens Freshness & Freshness CL

In the consumers' mind, freshness is one of the key factors of bread quality. Consumers evaluate the freshness of breads in different ways. They judge the softness by squeezing the bread before purchase, appreciate the moistness of the crumb at the moment of consumption and evaluate the conservation of this softness and moistness over time (shelf life).

## What's your texture?



## Challenge

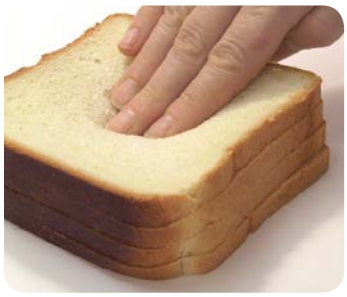
After baking, breads lose freshness because of crumb staling, the process in which starch molecules crystalize. The crystals trap moisture, making the crumb feel dry. The bonding of gluten and starch is another effect of staling. More bonds make the crumb even more firm.

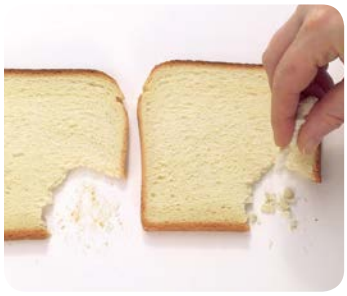
## Solution

**Intens Freshness** is a solution that optimizes freshness by increasing the softness, crumb moistness and shelf life of soft breads and rolls. The efficiency of the enzymes used in **Intens Freshness** is measured both mechanically and through sensory analysis.

## Typical applications

- Increasing softness and shelf life in packed sliced bread and buns.
- Optimal crumb moistness for sweet bakery products with inclusions or fillings.
- Achieving months of shelf life for soft croissants.
- For all bakery products where additional freshness is desirable.





## Dosage

- Can be added to any recipe, on top of existing bread improvers
- 0.25 – 0.5%, according to recipe and desired freshness

**Packaging:** 25 kg bag
**Shelf life:** 9 months

## Benefits

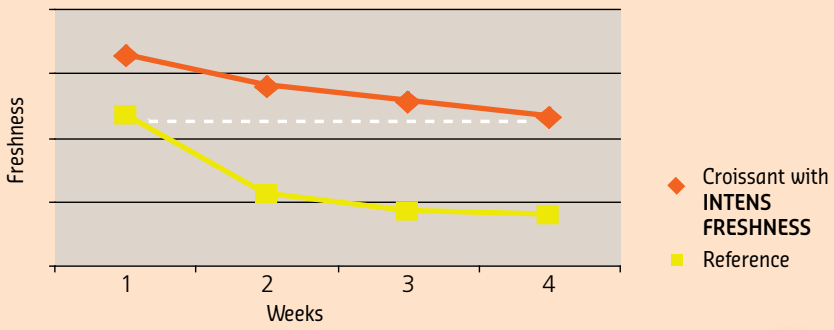
- **For the consumer**
  - Soft breads and rolls are softer when squeezed.
  - Excellent crumb moistness provides more eating pleasure.
  - Longer shelf life for more convenience and less waste.
- **For the industrial baker**
  - Extended shelf life optimises logistics for baker and retailer.
  - Easy to use: improved freshness without having to reformulate the entire improver and recipe.

## Tested and approved

- Expert panels, in combination with instrumental measurements, accompany our product development. Once a solution is internally approved, we validate it at end consumer level.

### Freshness test

Sweet bakery products, especially with fillings and inclusions, tend to stale quickly. Two soft croissants are compared for freshness. The croissant with **Intens Freshness** shows overall superior freshness. After 4 weeks, its freshness is at the level of a 1 week-old reference croissant without **Intens Freshness**.

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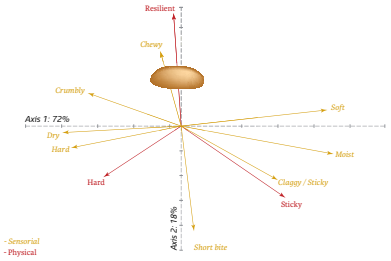
# Intens Resilience

Soft breads and rolls are at risk of deformation when compressed. This can happen during storage and transport, on the shelf, when squeezed by the consumer or once in the shopping bag. Ideally, the baked product should return completely to its original shape. The speed (and degree) at which this happens is called “resilience”.

## What’s your texture?



## Challenge

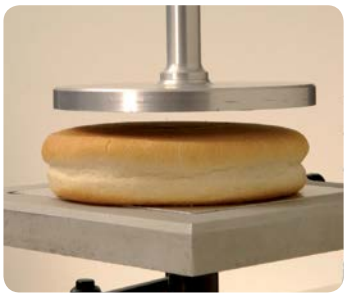
Gluten and starch play a key role in bread resilience. The resilience of a bread crumb is caused by the elastic properties of the gluten network and the gel network from starch. Many enzymes and emulsifiers will affect these networks in different ways.

## Solution

**Intens Resilience** is a modular solution that enhances the resilience of soft bakery products, helping them to regain their original shape after compression. Resilience is measured with mechanical instruments and sensory analysis.

## Typical applications

- Soft rolls and buns: less creasing in the bag especially in the bottom sleeve.
- Sliced breads: reduced lateral collapsing when stacked.
- Compatible with whole wheat breads, sweet bakery products and more.



## Benefits

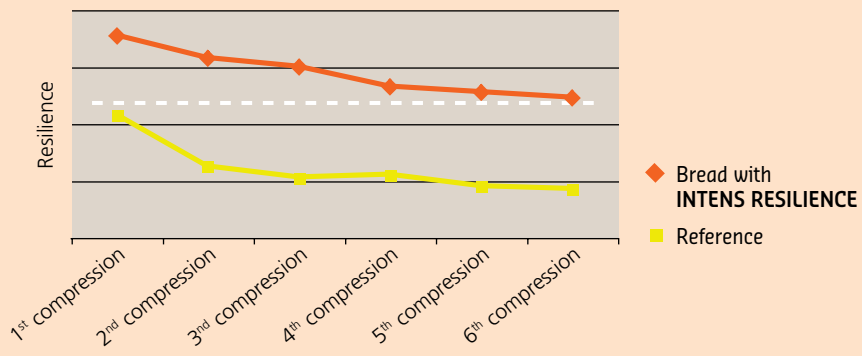
- **For the consumer**
  - Products are visually more appealing.
  - Better resistance to finger pressure for bread and rolls.
- **For the industrial baker**
  - Enhanced resistance to stacking and packing.
  - Easy to use: improved product resilience without having to reformulate the entire improver and recipe.

## Tested and approved

An expert panel, in combination with instrumental measurements, accompanies our product development. Once a solution is approved, we validate it with end consumers.

### Bread compression test

Two buns are compared by compressing each six times. The bread with **Intens Resilience** shows superior overall resilience. Even after 6 compressions, resilience is still higher than the reference bread without **Intens Resilience**.




## Dosage

- Can be added to any recipe, on top of existing bread improvers
- 3.0% according to recipe and desired effect

**Packaging:** 25 kg bag
**Shelf life:** 9 months

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# Intens Extensibility

## Challenge

Dough that is not relaxed will not mould properly. This is a common challenge which results in shrinkage of baguettes, puff pastry, croissants and pie dough.

## Solution

**Intens Extensibility** improve machineability by relaxing the dough. This leads to a more Consistent quality (shape, length, size...) of the end product. It will also enable you to increase yield and reduce waste.

## Typical applications

Pizza dough, laminated, baguettes, flat breads, donuts

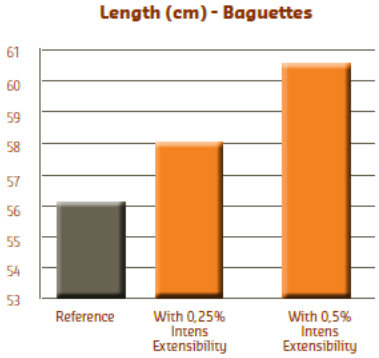
## Benefits

- **For the consumer**
  - consistent finished product (length and shape)
- **For the industrial baker**
  - Improved dough relaxation and machine-ability

## Tested and approved

Expert panels, in combination with instrumental measurements, accompany our product development. Once a solution is internally approved, we validate it at end consumer level.

- **For the industrial baker**




With 0.5% Intens Extensibility

With 0.25% Intens Extensibility

Reference

## Dosage

- 0.25-1.0%

**Packaging:** 25 kg bag
**Shelf life:** 9 months

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More resilient

Easy to eat

Better sliceability

Fresher

## Intens, optimize specific functionality of your bread

| PRODUCT / PRODUCT NUMBER | PRODUCT DESCRIPTION | USAGE | PACKAGE SIZE |
|---|---|---|---|
| INTENS FRESHNESS 4109020 | Increased softness, crumb moistness, longer shelf-life. | 0.25 - 0.5% | 25 kg bag |
| INTENS FRESHNESS CL 4109021 | Increased softness, crumb moistness, longer shelf-life. Clean Label. | 0.25 - 2% | 25 kg bag |
| IINTENS EXTENSIBILITY 4109018 | For puff pastry, croissants and pizza dough to reduce dough shrinkage. | 0.25-1% | 25 kg bag |
| INTENS RESILIENCE 4109019 | Enhances the resilience of soft bakery products to retain their original shape after compression. | 3% | 25 kg bag |

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