

# KIMILOID HV Quality Improver for Bakery and Confectionery

KIMILOIDHV is an excellent thickening and stabilizing agent that works exceptionally well with wheat flour products. Adding a small amount of KIMILOIDHV to bread dough delivers a variety of unprecedented quality improvement effects. When you want to further enhance the quality of your bread, be sure to try KIMILOIDHV.



Volume Increase and Improved Dough Strength The bread rises firmly from the bottom, leading to an overall increase in volume.



Prevents Caving Improves shape retention and prevents caving.



Improved Resilience and Texture Enhancement Exceptional resilience that allows the bread to return to its original shape even after being compressed.



**Reduced Oil Absorption** Decreases oil absorption, reducing greasy texture.

Alginate is a natural dietary fiber found in seaweed, making it a sustainable material produced by low environmental impact methods.

## KIMILOIDHV Fundamental Benefits

## Improved Dough Strength and Increased Volume

Adding KIMILOIDHV ensures that bread rises firmly from the bottom during baking, resulting in an overall increase in volume after baking. Sandwich loaves become fluffy and large, while buns and sweet breads achieve a satisfyingly firm texture.







### Resilience

Bread formulated with KIMILOIDHV exhibits increased elasticity and improved resilience, allowing it to bounce back completely even after being compressed. This not only prevents deformation during transportation but also imparts a soft, fluffy texture, among many other benefits.



## **Prevention of Caving**

If delicious, carefully crafted bread collapses after baking, its appearance is compromised. KIMILOIDHV improves the shape retention of bread and prevents caving. Even breads with soft doughs, such as raisin bread containing ingredients, maintain their appetizing appearance.

## KIMILOIDHV Effects on Various Types of Bread

## Sandwich

Bread used for sandwiches, tends to be too soft and easily squashed, resulting in a sticky texture in the mouth. KIMILOID makes soft sandwich bread more resilient and gives it a pleasant bite, preventing it from getting deformed.



### **Frozen Dough**

Frozen dough often suffers from reduced volume and doesn't rise adequately during baking. KIMILOIDHV improves the dough strength even in frozen dough, ensuring that the baked bread achieves a fluffy and voluminous texture.



### To Maximize Effectiveness, Water Content is Crucial

To maximize the effectiveness of KIMILOIDHV, the key is to slightly increase the water content compared to usual conditions. Simply increasing water alone can make the dough sticky and difficult to handle, but dough enhanced with KIMILOIDHV remains non-sticky even with increased water content.

### Water Addition Guidelines

Increase water content by approximately 1% relative to 0.1% KIMI-LOIDHV. When using approximately 0.2-0.5% KIMILOIDHV, increase water content by 2-5% to achieve optimal results.





## **Other Wheat Products Applications**

### Yeast Donut



#### Volume Increase

Like bread, yeast doughnuts achieve a voluminous, delightful texture.

#### Oil Absorption Control

When donuts are fried in oil, over time, the oil may leak out or cause a greasy texture. KIMILOIDHV reduces the residual oil in donuts, helping to maintain their fresh appearance and texture immediately after frying. This also contributes to lower calorie content, ensuring a lighter treat.

### **Chinese Steamed Buns**



#### Texture Enhancement

KIMILOIDHV also provides the dough of Chinese steamed buns with elasticity. It imparts a moist, fluffy texture and enhances the bite, creating a unique eating experience.

#### Texture Improvement During Microwave Heating

When heating Chinese steamed buns in the microwave, the dough can sometimes become soggy or uneven in texture. KIMILOIDHV addresses these microwave-specific issues, helping to create delicious Chinese steamed buns that can be easily enjoyed at home.

### **Mechanism of Quality Improvement**

KIMILOIDHV (Propylene Glycol Alginate) has been shown to create a uniform and dense network structure of gluten, which serves as the framework of bread (depicted in yellow in the photo). This dense gluten structure uniformly supports the entire bread, contributing to KIMILOIDHV's specific enhancements such as volume increase and improved elasticity.



Electron Microscope Image of Bread Internal Layers



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