

THE ALTERNATIVE
TO ADDED
WHEAT GLUTEN



SMART[®] Wheat



Art. No.: 930312 Plastic H1 Euro pallet

Art. No.: 931912 Europool wooden pallet

SMART Wheat, the ultra high protein wheat flour, is a perfect alternative to the addition of wheat gluten. It allows very elastic dough to be produced with a high extensibility. SMART Wheat is labeled in the list of ingredients as WHEAT FLOUR.

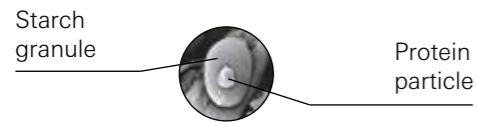
SMART Wheat – 100% native and functional

Alternative addition instead of wheat gluten

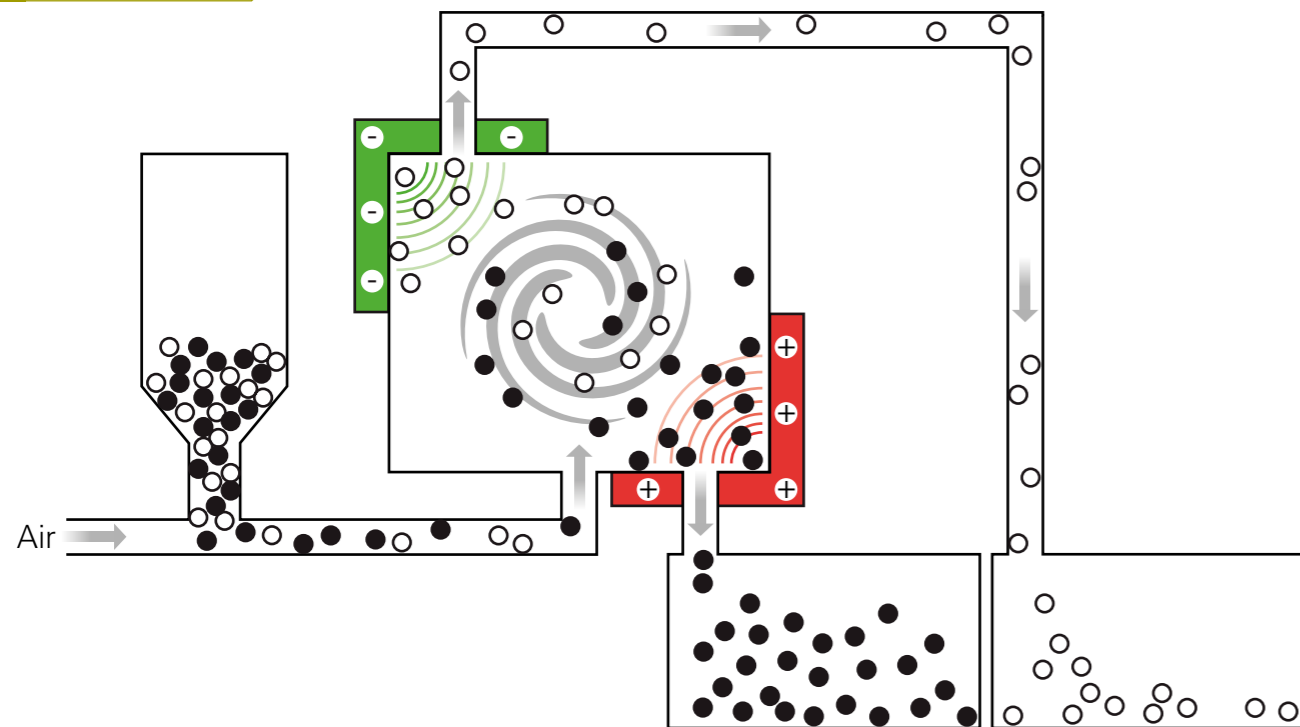
SMART Wheat is a high protein flour that is obtained by physical fractionation from protein-rich HIGH-STRETCH WHEAT. In contrast to commercially available wheat gluten, water (for washing out the starch) and high temperatures (for drying) are not required for its production. Therefore, the original, natural power and functionality of the wheat protein remains completely intact. This difference is responsible for many technological benefits.



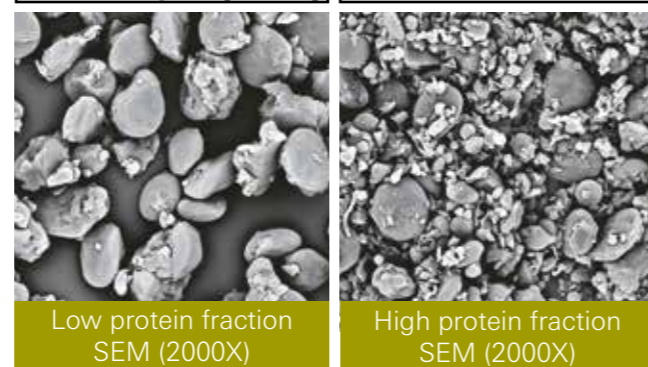
Scanning electron microscopy (SEM); magnification 2000X



Technology

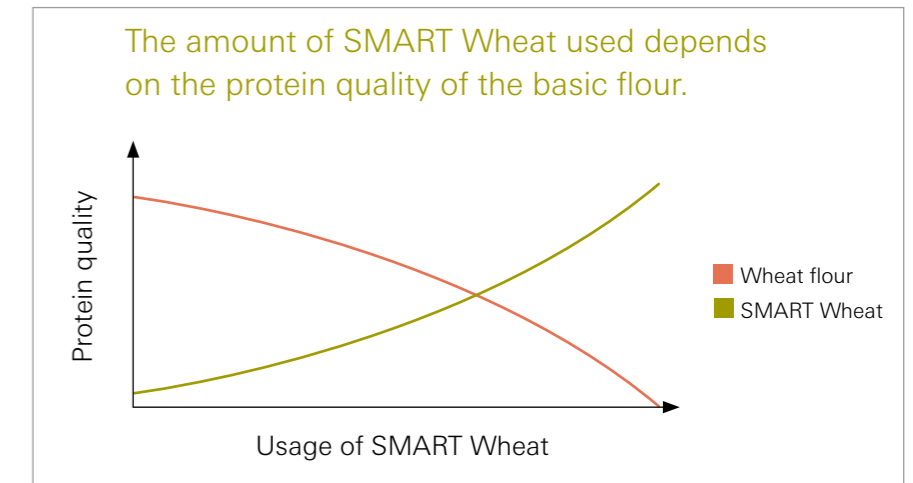


Special protein-rich wheat varieties are finely ground in a gentle and multi-stage process. The highly active, native protein particles are separated in a long fractionation channel. The positively charged protein fractions are particularly valuable because of their very high elasticity.



Uniform flour quality in the production process

Both the percentages of protein quality and the measurable quality differ depending on the harvesting conditions. Experience has shown that these differences result in large fluctuations in crop quality, which have a negative effect on the dough process and the quality of the baked goods. The use of SMART Wheat balances the crop-related quality deviations in the basic flour. This ensures improved dough processing properties.

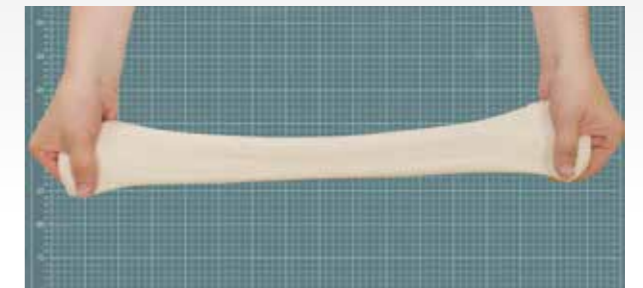


Improved gluten properties

Unlike washed out gluten, the protein in SMART Wheat is native and ungelled; it allows a much faster development of the gluten network thus improving stability and extensibility of the dough. Due to its distinct capability of forming a gluten network, the dough becomes very elastic. Therefore, SMART Wheat is an excellent replacement of wheat gluten for increasing the protein content in weak flours.



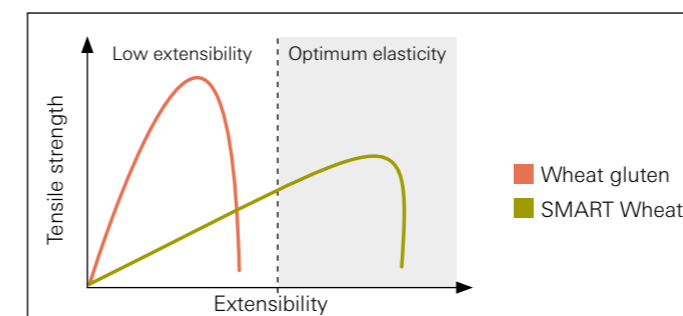
- Wheat gluten**
- Low extensibility
 - Partly damaged wheat protein



- SMART Wheat**
- Elastic and highly extensible dough
 - Native undamaged wheat protein with its original power

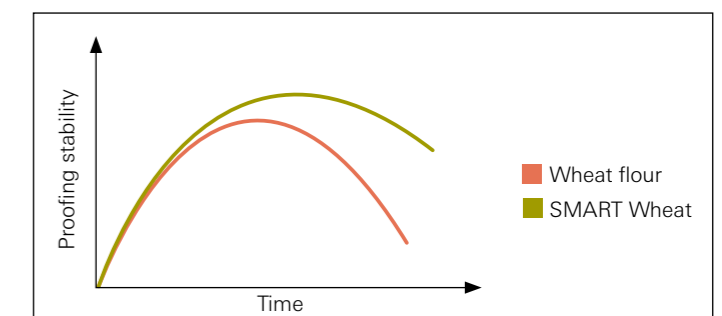
Increased viscoelasticity






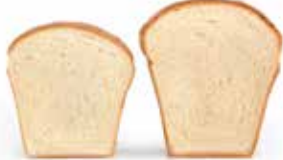

The specific viscoelastic properties of SMART Wheat improve dough quality, mixing tolerance and processing properties.



Improved final proofing stability

The doughs have higher gas retention capability and final proofing stability. This results in baked goods with a higher volume.



Application: SMART Wheat	Usage: SMART Wheat	Comparison: without SMART Wheat (left) and with SMART Wheat (right)
Small wheat-based pastry/ other small bakery items	2 - 5%	
Whole grain baked goods/ multi-grain baked goods	5 - 10%	
Wheat bread	2 - 5%	
Mixed wheat bread	2 - 5%	
Rye bread/mixed rye bread	3 - 7.5%	
Yeast dough	2 - 5%	
Doughnut balls	5 - 10%	

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