KPM

WE CRAFT ASSURANCE

Understand Damaged Starch to Control Volume, Color, and Reduce Sticky Dough

Tips for Bakers and Millers

A grain of wheat contains 70% starch. Starch is damaged during milling. Not necessarily a bad thing, but it is to be mastered!

DAMAGED STARCH MULTIPLIES THE CAPACITY OF WATER ABSORPTION

Positive:

An higher absorption potential increases productivity: **more products from the same quantity of flour.**

PRODUCTIVITY

Problematic - stickiness:

If there is more water than the proteins in the flour can handle, it can make the dough sticky. A balance has to be found between the **protein level and the starch damage.**

STICKINESS

BONUS

If everything goes well during production, the water absorbed by the damaged starch will be released very slowly, improving the **freshness** and **shelf life** of the products.

DAMAGED STARCH LEADS TO HIGHER SUGAR PRODUCTION

This Impacts:

VOLUME :

The level of produced CO^2 affects the **volume** of the final product. In excess, the dough is porous and unstable, **resulting in low-volume** final products.

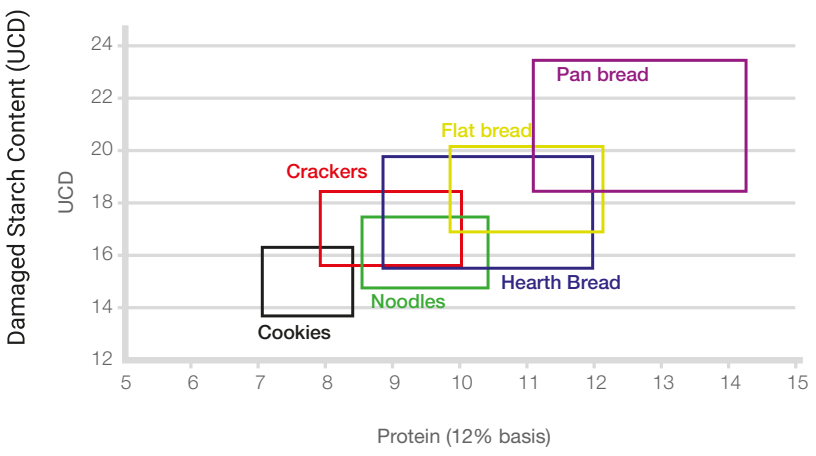
COLOR:

Sugar contributes to caramelization. Too much sugar can lead to **excessive browning of the crust**.

How Can You Measure and Specify Damaged Starch?

Depending on the finished product, there is a specific balance to be achieved between damaged starch and protein in the flours used.

Optimal flour composition (damaged starch and protein content) by type of finished product



How Do You Measure Damaged Starch?

SDmatic 2

The **CHOPIN SDmatic 2** test is an automated method and based on starch's affinity to iodine. The higher the damaged starch, the more iodine is bound and the smaller is the residual current. **It's simple, fast and reliable, with test results in under 10 minutes!** The SDmatic 2 test is recognized as a **standardized method:** AACC-76-33.01, ISO 17715, ICC 172/1… and proves to be more accurate than other existing methods.

TIPS

BAKERS
Determine the damaged starch level that meets your needs, define a specifications book for your miller, and control delivery

MILLERS
Master damaged starch level: optimization and settings of your milling process to produce flours according to your customers specifications

CONTACT

KPM Analytics to learn more about the **CHOPIN SDmatic 2** today!
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