



SDmatic VS. Enzymatic Method

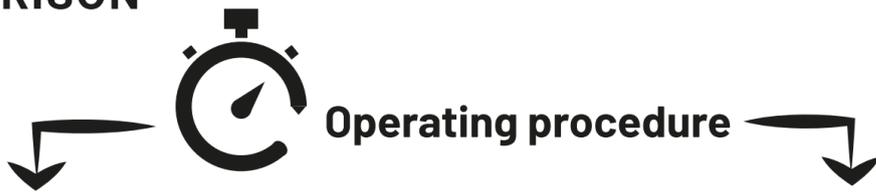
Choose the Fast, Accurate Method for Determining Starch Damage Content

OVERVIEW

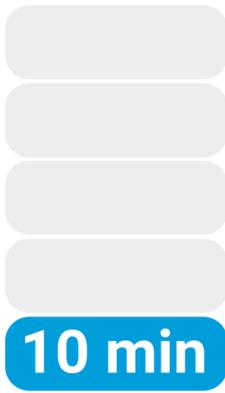
The SDmatic method (AACC 76-33.01) is a standalone amperometric method to quantify starch damage. But how does it compare to traditional enzymatic measurement methods (AACC 76-31.01) on speed and simplicity?



COMPARISON



SDmatic AMPEROMETRIC METHOD AACC 76-33.01



ENZYMATIC METHOD AACC 76-31.01



SDmatic AMPEROMETRIC METHOD AACC 76-33.01

1. Prepare the solution
2. Place the solution on the reaction bowl
3. Weigh 1g of flour in the spoon
4. Insert this spoon in the SDmatic
5. Configure the test and press Test
6. Get the results in approx 5 minutes in 5 different units

ENZYMATIC METHOD AACC 76-31.01

1. Prepare 100 ± 10 mg of flour in a 12 ml tube
2. Pre-balance at 40°C for 2 to 5 min
3. Add 1.0 ml of fungal alpha amylase solution (50U/ml) pre-balanced at 40°C
4. Homogenize using a vortex stirrer
5. Incubate at 40°C for precisely 10 min
6. Stop the enzymatic reaction by adding 8.0 ml of diluted sulphuric acid (0.2 % v/v)
7. Centrifuge at 3000 rpm (1000 x g) for 5 min
8. Take 0.1 ml of overlying liquid
9. Add 0.1 ml of amyloglucosidase solution
10. Incubate at 40°C for 10 min
11. Add 4.0 ml of GOPOD reagent
12. Incubate at 40°C for 20 min
13. Measure absorbance at 510 nm (spectrophotometer)
14. Convert the absorbance measured as a % of damaged starch

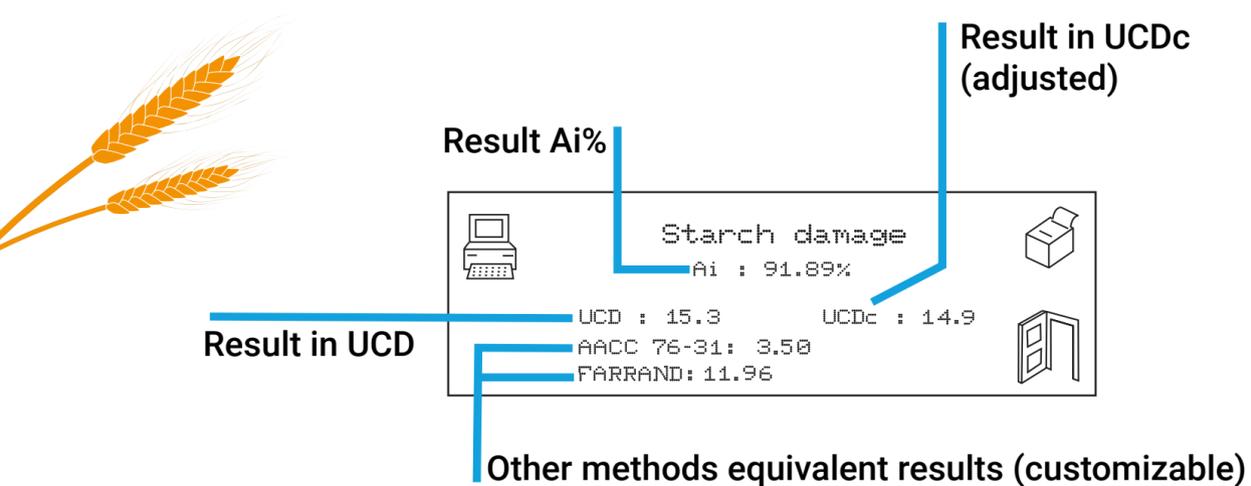


40 Minutes Saved
with the amperometric / SDmatic method!



RESULTS

The results obtained from each method are different in terms of values and units; however, they are highly correlated. Specific calibrations can be developed (and integrated into the instrument) to transform SDmatic results into AACC 76-31.01 or Farrand equivalents. This allows operators to simply, rapidly, and accurately measure damaged starch with the SDmatic without changing their reference methods.



Contact KPM Analytics today for more information!

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