

SDmatic 2

AUTOMATED DAMAGED STARCH ANALYZER



Control Flour Quality by Analyzing Damaged Starch

Damaged starch affects flour properties and functionality. The SDmatic 2 is the latest analyzer to measure damaged starch, ensuring millers produce flours according to customer specifications and bakers have the flour mixtures they need to produce high-quality end products. The SDmatic 2 is the only instrument that measures damaged starch that is officially recognized internationally and meets industry standards.

SIMPLE AND FAST

The SDmatic 2 is based on the enzyme-free, amperometric method (Medcalf & Gilles), which measures iodine absorption in a diluted flour sample. Reliable results are obtained in less than 10 minutes, with only 1 gram of flour. With the SDmatic 2, the user can simply follow the test prompts on the touch screen and view a wide range of new information, such as complete iodine absorption curves and graphical results showing optimal flour composition (damaged starch and protein content) by type of finished product.

VERSATILE, ACCURATE DATA

The SDmatic 2 software offers a wide range of settings, such as learning mode, choice of units for expressing results, countdown timer, etc. There are also new analysis possibilities, such as the ability to customize protocols by adjusting the required flour mass, iodine generation time or measurement time. This adaptability opens up the possibility of developing protocols for flours other than wheat.

Results are displayed on the touch screen (Chopin Dubois units, AI% (iodine absorption), Vabs) and easily correlated with the enzymatic method units. The data from each test is stored on the device and can be referenced at any time or exported.

EASY TO MAINTAIN, LOWER COST OF OWNERSHIP

The SDmatic 2 is easier to maintain, offering a low cost of ownership. The probe has been redesigned to allow the user to install or remove it easily and safely, removing the need to have technician on-site and saving costs. The spoon is more durable and higher-quality metal, allowing the user to clearly identify when cleaning is necessary, preventing cross-contamination or inaccurate sample sizes. Maintenance is also easier with the ability to connect to Teamviewer and diagnose problems remotely.



SDMATIC 2 FEATURES

- Simple to use - follow test prompts
- Fully automated and enzyme-free testing
- Guarantees reproducibility and repeatability of the results
- Provides exceptional accuracy compared to other methods
- Standard and Calibration protocol already installed
- Customized protocols possible
- Export data on USB (.csv), or via network to LIMS (using a script)
- Only device compliant with international standards: NF EN ISO 17715:2015, ICC 172, AACC 76-33.01



ORDERING INFORMATION

The SDmatic 2 comes complete with a plug and play measurement probe, a stirrer, a heater resistor, 2 reaction bowls, 2 metallic spoons, and a cleaning container. It is equipped with a 7" color touch screen and a heating compartment for a flask with a solution. A dropper is furnished for thiosulfate. The unit is equipped with 4 USB ports (for USB sticks, barcode scanner, printer - not supplied).

MODEL AVAILABLE

Part Number	Description
SDMATIC 2	Automated and precise analyzer to measure damaged starch



ACCESSORIES

Part Number	Description
SD-100/A	Strong flour Ref. sample for performance checking
SD-100/B	Weak flour Ref. sample for performance checking
SDC-1000	SDmatic 2 spare part kit



References Samples

SPECIFICATIONS

Size	450 mm x 370 mm x 265 mm (17.7" x 14.6" x 10.4")	
Weight	8 kg (17.64 lbs)	
Noise level	< 50 dB	
Power	External power supply 24 VDC 110/230 V 50/60 Hz 88 W (1.3 W on standby)	
Reagents needed per test (not supplied)	Citric acid (C6H8O7): 1.5 +/- 0.5 g Potassium iodide (KI): 3.0 +/- 0.5 g Sodium thiosulfate (Na2O3S2) at 0.1 mol./l. : 1 drop	
Measurement reading	Damaged starch content - Ai% - UCD and UCDC (Chopin Units) - Equivalent AACC 76-31, Farrand (alternative enzymatic methods)	Iodine Absorption rate - Vabs
Environmental considerations	Indoor use Storage temperature: -25°C to +55°C (-13°F to +131°F) Operating temperature: 10°C to 30°C (50°F to 86°F) Hygrometry: HR ≤ 85 % at 40°C (104°F) Power voltage variations: < ± 10%	
Regulatory Compliances	NF EN ISO 17715:2015, ICC 172, AACC 76-33.01 Degree of pollution as per EN 61010:2 Installation category as per EN 61010: II (overvoltage category)	

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