SDmatic 2

AUTOMATED DAMAGED STARCH ANALYZER

KPM

CHOPIN TECHNOLOGIES — a KPM brand

Control Flour Quality by Analyzing Damaged Starch

Damaged starch affects flour properties and functionality. The SDmatic 2, the newest analyzer for measuring damaged starch, helps millers meet customer specs and ensures bakers get the right flour mix for quality products. It is the only globally recognized instrument that meets industry standards for assessing damaged starch.
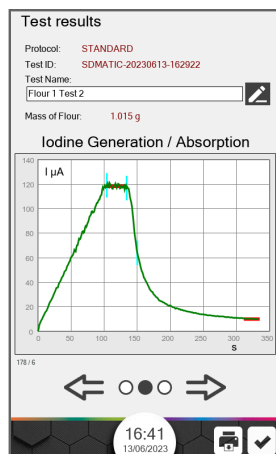
SIMPLE AND FAST

The SDmatic 2 utilizes the enzyme-free, amperometric Medcalf & Gilles method to measure iodine absorption in diluted flour samples. It delivers reliable results in under 10 minutes using just 1 gram of flour. Users can easily follow test prompts on the touchscreen, accessing new data such as complete iodine absorption curves and graphical results that display optimal flour composition—including damaged starch and protein content—tailored to different finished products.

VERSATILE, ACCURATE DATA

The SDmatic 2 software features various settings including a learning mode, customizable units, and a countdown timer, along with new analysis options like adjustable protocols for flour mass, iodine generation, and measurement time. This flexibility allows for protocol development for non-wheat flours.

Results are displayed on a touchscreen in Chopin Dubois units, AI% (iodine absorption), and Vabs, and can be correlated with enzymatic method units. Test data is stored on the device and can be accessed or exported as needed.

EASY TO MAINTAIN, LOWER COST OF OWNERSHIP

The SDmatic 2 offers low maintenance and ownership costs. Its redesigned probe is user-friendly, allowing easy and safe installation or removal without needing an on-site technician, which reduces costs. The spoon, made of more durable, high-quality metal, helps users identify when cleaning is required to prevent cross-contamination or inaccurate sample size. Additionally, maintenance is simplified with the ability to use Teamviewer for remote problem diagnosis.

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 to LIMS (using a script), either on a USB or via network (using Wi-Fi, or Ethernet cable)
- 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 ($C_6H_8O_7$): 1.5 +/- 0.5 g Potassium iodide (KI): 3.0 +/- 0.5 g Sodium thiosulfate ($Na_2O_3S_2$) at 0.1 mol./l. : 1 drop
Measurement Reading	Damaged starch content - Ai% - UCD and UCDc (Chopin Units) - Equivalents AACC 76-31, Farrand (alternative enzymatic metods) **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)
Software Languages	Bulgarian, Chinese, English, French, German, Greek, Hungarian, Polish, Portuguese, Romanian, Russian, Spanish, Turkish and Ukrainian
Connectivity	4 USB ports, 1 network port and Wi-Fi