Brabender®

ISO 712
ICC-Standard no. 110/1
VO (EG) Tobacco 2182/2005

Moisture Tester MT-C

Single and serial determination of
the water and solvent content

… where quality is measured.

Quick, precise, reproducible

Moisture Tester MT-C

The **Brabender® Moisture Tester MT-C** is an electronic moisture tester using the principle of the drying chamber with moving air. The instrument determines the loss in weight of the sample material which results from drying.

Due to the continuous air flow within the drying chamber, the drying process takes considerably less time than in a conventional drying chamber without ventilation.

The **MT-C** provides an individual and serial determination of the water and solvent content – quick, precise, reproducible.

Standardizable

The **MT-C/Z** is a specific version of the **MT-C**, which is approved by the PTB, Braunschweig, which is responsible for standardizations in Germany.

This approval is valid for wheat, barley, rye, oats, rape, coconut and sunflowers in the range of certain moisture contents.

Procedure

Select the desired drying method from a list of methods, each method including the drying temperature, drying time, and sample weight incl. tolerance range. Weigh your samples with the built in electronic precision balance.

Place your samples onto the turntable in the drying chamber. The drying process runs fully automatically. Additional samples can be put into the drying chamber at any time, even if there are other samples still drying.

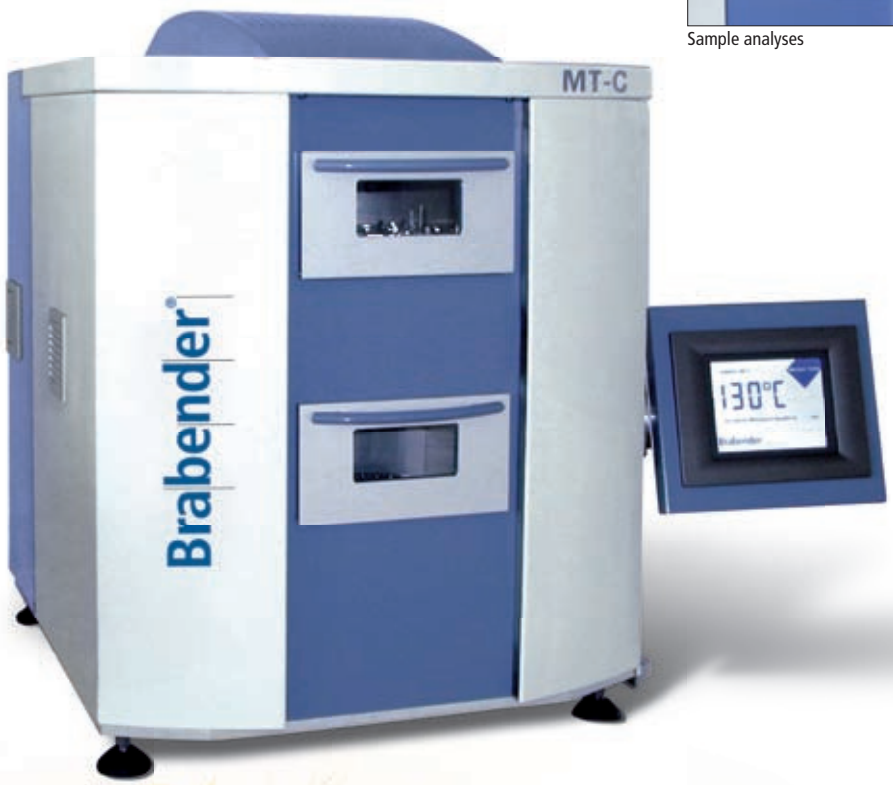
The difference

Profit from the advantages of the **MT-C** as compared to other instruments and methods for moisture determination (e.g. NIR, drying balances, dielectric instruments):

- The drying chamber method is the reference method - there is no special calibration for different samples necessary
- Gentle and uniform drying ensures precise results
- Measure up to 10 samples at a time
- Determine the water content with an accuracy of 0.1%

Touch-Display

Sample analyses



Optional data output on a printer

By connecting an optional printer, you can easily file your tests: Just print the results and the complete test protocol on this separate printer and get a complete documentation of your measurements.

It is also possible to hand on the data via an ethernet port (LAN-connection) to a data acquisition system.

Precise weighing directly in the drying chamber

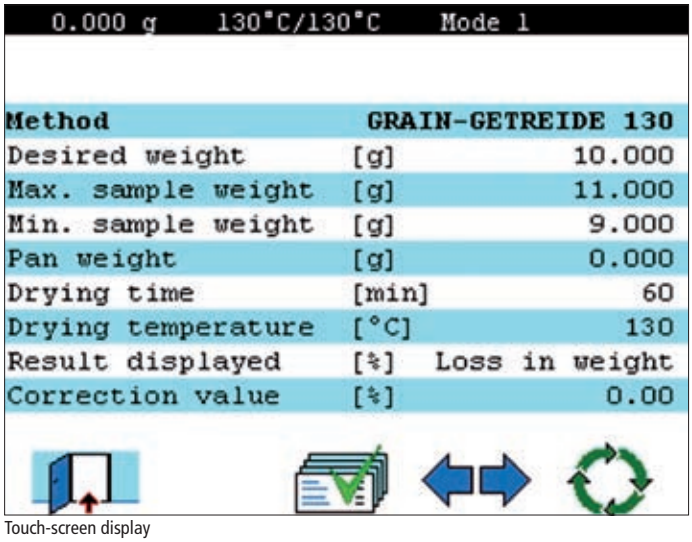
The drying chamber of the **MT-C** is easily accessible through a door with an inspection window. Put up to 10 samples onto the turntable inside the drying chamber - the timing is up to you.

A fan blows air through an electric heater into the drying chamber. The temperature within the chamber is controlled by an electronic temperature controller and an RTD.

Weigh your samples quick and reliable on the electronic high-precision balance mounted below the drying chamber - outside of the drying chamber before drying, and automatically within the drying chamber immediately after drying, while the samples are still hot.

Profit from the process-technical advantages of this configuration:

- Avoid time-consuming cooling of your samples in a desiccator and the resulting faults by direct measurement after drying
- Avoid weighing errors



Touch-screen display

Examples of drying times and temperatures of various materials

Materials	Material [g]	Temperature [°C]	Time [min]
Foodstuff			
Oats	10	130	60
Noodles	10	130	60
Bread	10	130	90
Starch*	10	130	30
Flour*	10	130	60
Rye*	10	130	60
Wheat*	10	130	60
Barley*	10	130	60
***Rapid method**	**10**	**155**	**20**
Chocolate	10	105	45
Cocoa	10	105	40
Coffee (green)	10	105	60
Tobacco	5	123	30
Malt flour	10	105	60
Hops	5	105	180
Feedstuff			
Extraction residues	10	130	50
Rape	10	105	160
Roughage	5	130	50
Sugar beet cassettes	10	130	60
Cellulose Products			
Wood	5	130	30
Paper pulp	10	130	70
Beech cellulose	5	130	15
Fibers			
Lambswool	10	105	100
Cotton	5	130	15
Jute	10	105	120
Artificial silk	10	130	60
Minerals			
Lignite	10	130	45
Phosphates	10	100	180
Foundry sand	10	130	20
Potassium nitrate	10	130	60
Washing agents			
Basic soap	5	120	60
Soft soap	5	150	60
Detergents	5	130	90
Polymers			
PVC	10	130	150
PE	10	130	125
PP	10	130	150
Others			
Cork	10	90	60
Leather	5	105	60
Casein	10	130	180

more methods available upon request

… where quality is measured.

Moisture Tester MT-C

Simple operation

During the measurement, just follow the instructions of the software.

The display and control panel of the **Moisture Tester** is a touch-screen display which is capable of handling graphics.

The Windows® CE software offers:

- Programming of up to 10 different drying methods
- Password protection for individual methods
- Entry of product and/or charge specification
- Automatic taring
- Free selection of the drying time for each individual sample
- Automatic recognition of the selected sample position by a position sensor
- Entry of any sample weights between 1 g and 20 g with presetting of tolerance ranges - no time-consuming weighing of constant sample weights
- Barcode reader
- Automatic positioning of the turntable
- Fully automatic re-weighing after drying
- Automatic recording of drying curves
- Automatic calculation of the absolute loss in weight and/or the percentage of moisture
- Possibility of data exchange with other PCs via network connection (ethernet).

The software creates a complete test protocol after the test including the product name and test conditions like sample weight, drying temperature, and drying time.

Moisture Tester MT-C	
Mains connection	1x 220/230 V; 50/60 Hz + N +PE; 6.5 A 115 V; 50/60 Hz + PE; 13 A
Dimensions (W x H x D)	800 x 690 x 630 mm
Weight	approx. 80 kg net
Drying temperature	max. 200°C in the drying chamber
Heating capacity	1100 W
Sample weight	min. 1 g, max. 20 g (optional setting of a tolerance range)
Number of samples	max. 10 at a time
Measuring range	0.1 to 100% water content
Accuracy	< 0.1% water content
Display resolution	0.001 g
Reproducibility (balance)	± 0.002 g
Memory parameters	• Sample position in the drying chamber • Sample specification • Sample weight • Relative loss in weight • 10 methods
Data input / output	• Touch-screen display • USB port for printer • Network (Ethernet) connection
Environmental conditions	Temperature: 10 – 40°C

Made in Germany

Brabender® GmbH & Co. KG
Kulturstr. 51-55 · 47055 Duisburg · Germany
Phone: +49 203 7788-0 · Fax: +49 203 7788-102
E-Mail: food-sales@brabender.com
www.brabender.com

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