



Brabender® Moisture Tester MT-CA

User-friendly determination of moisture
and solvent content



... where quality is measured.

Quick, precise, reproducible



The Brabender Moisture Tester MT-CA 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-CA provides an individual and serial determination of the water and solvent content – quick, precise, reproducible.

The difference

Benefit from the advantages of the MT-CA 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 – no need of special calibration for different samples
- 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%
- Profit from software-aided recording of drying curves for determining the optimum drying time and temperature of your samples
- Suited for nearly all organic and inorganic materials

Moisture Tester MT-CA



Brabender MetaBridge software running on tablet

The advantages

- User-friendly operation by touch – perfect for tablets and smart-phones
- Responsive web design: screen resolution adjusted automatically
- Ready to use, no installation necessary
- Security of tests and data through password protected user log-in
- Live test tracking by authorized users from multiple end devices all over the world at a time

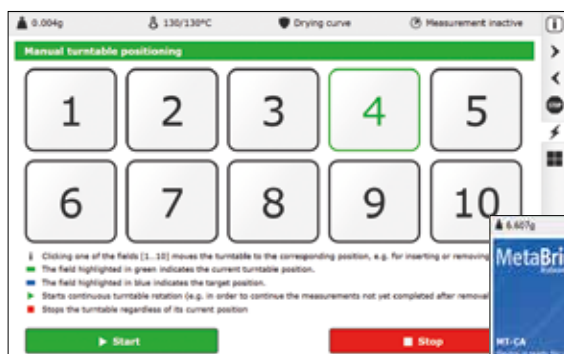
Intelligent features

Benefit from new and optimized functions:

- Administration mode for user access rights
- Webbased solution – possibility of sharing information and data with other users worldwide
- Live tracking of tests with end time indication for logged-in users
- Optimized basic functions like data recording and evaluation, printing and export of test results – clearer, easier, faster
- Central test administration and data storage provides for quick and easy access of authorized users
- Easy definition, clear display and quick integration of reference curves
- Optimized functions for editing and adapting diagrams to your individual needs

Discover the Brabender MetaBridge

The new software is characterized by its easy and intuitive handling. After log-in, the user finds all information about the device and a choice of options for his purpose on the start screen.



Turntable positioning with the MetaBridge



Clear start screen

Procedure

Select the desired drying method from a list of methods, each one including the drying temperature, drying time, and sample weight incl. tolerance range. Weigh your samples with the integrated electronic precision balance in a range from 1 g to 20 g. Place your samples onto the turntable in the drying chamber. The drying process runs fully automatically. After drying, re-weigh your samples directly in the drying chamber – no need of previous cooling – and avoid weighing errors by the operator.

Additional samples can be put into the drying chamber at any time, even if other samples are still drying.

Data output and networking

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 forward the data via an Ethernet port (LAN) to a data acquisition system.

Precise weighing directly in the drying chamber

The drying chamber of the MT-CA 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 quickly and reliably on the electronic high-precision balance mounted below the drying chamber – outside the drying chamber before drying, and automatically within the drying chamber immediately after drying while the samples are still hot.

Benefit from the process-technical advantages of this configuration:

- Weigh your samples directly in the drying chamber
- Avoid weighing errors
- Save time
- Save money (no separate instrument required for drying)

Examples of drying times and temperatures of various materials

Materials (others on request)	Sample weight [g]	Temperature [°C]	Time [min]
Polymers			
PVC	10	130	150
PE	10	130	125
PP	10	130	150
Minerals			
Lignite	10	130	45
Phosphates	10	130	10
Foundry sand	10	130	20
Potassium nitrate	10	130	60
Others			
Cork	10	90	60
Leather	5	105	60
Casein	10	130	180
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
Washing agents			
Basic soap	5	120	20
Soft soap	5	150	60
Detergents	5	130	90
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



Sample weighing

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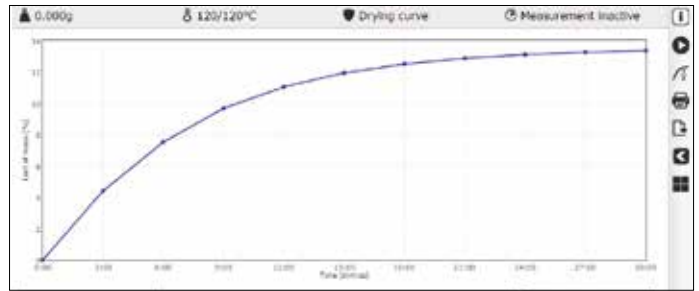
Moisture Tester MT-CA

Software-aided operation

- Programming of up to 10 different drying methods with temperature, sample weight (incl. tolerance range), and drying time
- Password protection for individual methods
- 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
- Automatic taring with variable pan weights or automatic taking over of fixed pan weights for

weighing and re-weighing

- Entry of product and/or charge specification
- Possibility of barcode reader connection via USB
- Automatic positioning of the turntable
- Free selection of the drying time for each individual sample
- Fully automatic re-weighing after drying
- Automatic calculation of the absolute loss in weight and/or the percentage of moisture
- Multiple determination of a sample with automatic mean value calculation
- Automatic recording of drying curves



Drying curve



Brabender application laboratory

The Brabender support

Our state of the art application laboratory is always made available to our customers.

You can choose to send material to us for testing or schedule a specific Lab Trial with our expert team.

In our application laboratory, you will have access to our full product line to help come to a solution for your application.



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Moisture Tester MT-CA

Principle	Drying oven method with fully automatic re-weighing
Number of samples	max. 10 at a time
Sample weight	min. 1 g, max. 20 g (optional setting of a tolerance range)
Drying temperature	max. 200 °C in the drying chamber
Heating capacity	1100 W
Balance	Integrated electronic load cell
Measuring range	0.1 to 99.9 % water content
Accuracy	< 0.1 % water content
Display resolution	0.001 g
Reproducibility (balance)	± 0.002 g
Memory parameters	<ul style="list-style-type: none"> • Sample position in the drying chamber • Sample specification • Sample weight • Relative loss in weight • 10 methods
Ports	4 x USB 1 x HDMI 1 x LAN
Environmental conditions	Temperature: 10 - 40 °C
Mains connection	1 x 230 V, 50/60 Hz + N + PE, 16 A 115 V, 50/60 Hz + PE, 16 A
Dimensions (W x H x D)	665 x 690 x 630 mm (without touchscreen) 825 x 690 x 630 mm (with touchscreen)
Weight	80 kg

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