

A FEW PRACTICAL BENEFITS:

Rugged design in metal carrying case

For initial weights of up to 100 g (calcium sulphate plaster)

Attractive price-performance ratio

Direct reading of CM moisture with accuracy class up to 0.1 % (Business)

Log printer documentation prevents damage and follow-up costs (Business)

Complete sets with a choice of 2 mechanical or digital precision manometers

CM devices

for fast and reliable moisture measurement in construction materials



CM measurements offer protection against expensive claims at a later date.

Professionals know: Building damage can often be attributed to excessive residual moisture of the base surface.

The Trotec CM Complete Sets allow you to carry out your measurements quickly and reliably. The residual moisture content in processed construction materials such as base floors etc. can be determined precisely on site, without requiring the use of additional aids or tools, and the results can be documented with the log printer (option supplied with the "Business" CM set).

Here, multiple print-outs can simplify administration and provide proof of the fulfilment of testing obligations in the event of a dispute.



Thanks to the precise measurement technology, time-consuming laboratory tests can be dispensed with.

The indicated reading on the pressure gauge corresponds to the actual percentage value of residual moisture – no bothersome conversions are necessary.

Surface thermometer to prevent measurement errors ...



In general, the conversion tables of all CM units available on the market are based on a constant ambient temperature of 20 °C. In a best case scenario, this temperature will prevail at the start and the end of a measurement.

If a deviation from the reference temperature occurs at one of these two

points and unless the operator is attentive, a more or less relevant error can occur depending on the amount of deviation:

For each 3 °C deviation, the error is 1 % of the pressure (temperature is the same at the beginning and the end of the measurement task).

For this reason, Trotec CM units are fitted with a surface thermometer that indicates the cylinder temperature. This allows possible temperature errors to be recognised.

For example, if one carried out a measurement at a constant 35 °C and read a pressure of 0.8 bar, the CM % moisture for a weighed quantity of 50 g is 1.57 CM % according to the table or scale.

The same measurement taken at a constant 20 °C would have led to a pressure of 0.76 bar (5 % lower) and hence to a moisture of 1.49 CM %.

Trotec CM Complete Sets prove their worth by their easy use and high accuracy:



CM Complete Set Classic

Comprising CM Basic Case and
CM Measuring device Classic
Article no. ZB9100100



CM Complete Set Business

Comprising CM Basic Case and
CM Measuring device Business.
Article no. ZB9100106

Content of the CM basis case:

1. Digital scale

- Weighing capacity 150 g
- Minimum graduation 0.1 g
- Indication stabilisation within 3 seconds
- Mechanical protection via weighing plate covers
- Overload and undervoltage indication
- Auto switch-off
- Calibration weight (100 g) and batteries supplied (3 1.5 V type AAA)

2. Weighing beakers (2 ea.)

the weighed portion can be added directly to the cylinder – this practical measure prevents spillage

3. Full tool kit for sample conditioning

4. Ball set with 4 steel balls

(for starting, mixing and grinding effect)

5. 20 carbide ampoules

6. 3 test ampoules

with 1.00 g water for checking the cylinder for leaks/pressure gauge test

7. 3 spare seals

each for pressure gauge and pressurised cylinder, plus spoon and cleaning brush

8. Clear instructions for use

plus Quick-Start-Guide

9. Metal carrying case –

everything is kept in its proper place during transportation

The Business Set is optionally available with a CM log printer:



Comes complete with protective cover, charger and spare paper reel. (Article no. ZB9100043).

Prints the measurement results directly as a log. Multiple print-outs with log numbers are possible during a measurement task.

The log covers:

- Pre-set log header for company data and details of measurement point
- Selection list for measured test material
- Pressure characteristic during the measurement
- Total measurement duration in minutes and seconds
- Automatic computation of the CM % moisture of 10, 20, 50 and 100 g weighed portions
- Pre-set log footer for documentation, location, user and site owner



Tip:
Combination moisture measurement

Equipment differences and description pressure gauge model ...



Pressure gauge model	Classic	Business
Pressure measurement principle	ambient-dependent	ambient-independent
Dependence of indicated pressure	correlated	none
Splashproof / dustproof	standard	very good (steel diaphragm)
Online check	no	yes
Measurement duration indication	no	yes
Logging option on site	no	yes
Measured value storage	no	yes
Individual log printing	no	yes
Maintenance effort	check regularly	very low
Accuracy class pressure gauge	1.0	0.1
Measuring range	max. 2.5 bar	-1 to 2 bar
Overload protection	good	good
max. error (mbar)	± 25	± 2
Attenuation pressure gauge cover	DIN-EN 837-2	DIN-EN 837-2
Serial interface	–	RS485
Direct read-out of CM% moisture		
10 g	–	■
20 g	■	■
50 g	■	■
100 g	■	■
other	bar	yes
Electrical power supply	–	long-life battery (approx. 3,000 hours)

Tip: Combination moisture measurement – more security thanks to combined testing of the readiness for laying

CM measurement is a recognised testing method for judging the readiness for laying of plaster. However, as for all measurement methods, the use of only one procedure can always lead to misinterpretations.

Tradesmen and builders have often found themselves before a court of law in recent times because the CM measurement result in an individual case indicated that the plaster was ready to lay when in fact it was not!

So play it safe and combine the measurement of the water content of the floors (CM measurement), which is tried and tested in continental Europe, with the balance moisture measurement which has been established as a standard procedure for many years, for example, in Scandinavia.

In the combination moisture measurement, the balance moisture and subse-

quently the water content of the same material sample are determined in two measurement steps.

Combination moisture measurement gives users of CM measuring devices greater security in judging the readiness for laying of plaster without a significant increase in cost. Also, the familiar CM measuring device can be used for this additional measurement.

The determination of both variables – **balance moisture and the water content of the material sample** – allows a more reliable judgment of readiness for laying than just one of the two measurement methods alone.

Since both measurement results are determined from the same material sample, the combination moisture measurement procedure leads to greater security for floor layers!

Required equipment for combination moisture measurement: In addition to the existing CM device, only the CM-Hygro-Combi-Lid (Article no. 3.510.007.020) and a T210 thermo-hygrometer or, in the case of an existing T3000 measuring device, a TS 210 SDI climatic sensor will be required.