

HD2 the mobile moisture meter for sand and gravel

Ensuring quality directly at the point of origin – directly at the construction site!

Stop
with laborious kiln-
drying and intricate
CM test

NEW: Now suitable for expanded clay



- ✓ **High reliability:** HD2 provides accurate moisture values in sand, gravel, grit, expanded clay and many other aggregates.
- ✓ **The handy two-rod probe** with the solid rods can be inserted easily into the measured material.
- ✓ **Both durable and waterproof construction** ensures safe handling even under difficult environmental conditions.
- ✓ **For data collection, mode change or calibration purposes,** the probe can be connected to a PC.

Never before has it been so quickly and accurate to measure moisture in sand, gravel, grit, expanded clay and many other materials

The quick verification of the moisture content of delivered sand or gravel or checking the moisture content of your material in regard to suitability for further processing – this used to be connected with the laborious kiln-drying method or the intricate CM test. Fortunately, these are no longer necessary. With the mobile moisture measurement system HD2, the enterprise IMKO is presenting a handy and robust system for the quick determination of the moisture content in sand and gravel, as well as other aggregates.

To conduct the measurement, the probe rods are simply inserted into the material and the measurement is performed with the mere actuation of the start button. Within two seconds, the moisture measurement value is presented on the clear display. In contrary to the kiln-drying method where the measurement is usually restricted to a measured quantity of 3kg, and the CM test which only measures approximately 30g, the HD2 is able to provide the user with a moisture content value of a measured quantity of 9kg with only one measurement. In the operation mode „Average Value“, merely 6 measurements are sufficient to provide a fast and accurate measurement of a material quantity of 9kg within a few seconds.



This is what we call representative, progressive and cost-saving.

More material measured in shorter time

Kiln-drying

Measured material:

3 kg



CM-test

Measured material:

30 g

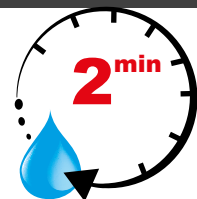


TRIME®-TDR

with HD2

Measured material:

9 kg



The patented TRIME®-TDR method of measurement saves you time, money and aggravation!



With the novel SONO sensors, IMKO is presenting a new generation of moisture sensors. They were especially designed to meet the demands of the construction and bulk industry. Their secret: The application of the most modern TRIME® radar technology (Time-Domain-Reflectometry). Via an electromagnetic TDR-impulse with a frequency of 1 GHz SONO-probes measure the water content precisely up to ranges where the material has become saturated, and they continue to measure beyond this stage. In addition, valuable diagnostics can be made regarding the mineral content or the consistency of the measured material.

The figure shows the effective measurement volume detected by the probe rods (green wave lines).

„No other manufacturer of mobile sand moisture devices could convince us so far. But the HD2 from IMKO has exceeded our expectations. After many days of comparative measurements in the laboratory, we can confirm the highest accuracy for the HD2 mobile moisture meter using the SONO-M1 probe.“

Michael Ackermann, RAGANO Betonfertigteile

Simple and structured: The measurement procedure with the HD2

The innovative hand-held instrument HD2. Simple and robust in a clear format, keyboard layout and operation.



The material selection

Depending on the application there are up to 15 material specific calibrations selectable in the probe.

Setup: → Material Calibr.	
No.	Name:
04	Sand 0..4mm
05	Gravel 2..8mm
06	Gravel 8..16mm
07	Gravel 16..32mm

Here you can see the calibrations by name. Own calibrations can be created and stored.

By push of a button the measurement starts

The measurement

The single values of the measurements.

Here you see the selected calibration.

Charge of the battery

4,36%	Cal.1	6
4,47%		
4,47%		
4,35%		
4,46%		
4,47%		
Ø - Moist:		
4,43%		

The HD2 automatically forms a stable average of the number of the single measurements.

The expert function: water calculation

In operating mode „Water Calculation“ you can determine the amount of water per m³ for your material.

3,42%	Cal.01	2
3,52%		
Water Cont:		
53,78 $\frac{l}{m^3}$		

Simply enter the bulk density in kg/dm³ ...

... and you get the averaged value in l/ m³.

Ensuring quality directly at the construction site! This is no problem for the handy two-rod SONO probes for the measurement in sand, gravel, expanded clay and other aggregates. Based on state-of-the-art radar technology.



The rugged handheld instrument provides convenient one-hand operation. The clear display shows all important information at a glance.



The robust and inexpensive two-rod probe for every application.



The extremely rugged two-rod probe. The wedge-shaped design allows deeper insertion into the material.



Technical data HD2

Convenient one-hand operation. The multi-line LCD display shows all information at a glance.

Power supply:	4,8V-DC, 2000mAh Battery capacity. Full battery for up to 1500 measurement cycles sufficient
Charging Time:	Complete approximately 2h
Resolution:	0,01%
Calibration:	(sensor side)
Case:	Weatherproof, robust aluminium diecast (IP67)
Weight:	437g
Length:	150mm
Width:	64mm
Height:	36mm

Technical data SONO-M1

Robust moisture probe with large measurement volume. Perfectly suited for sand, gravel and grit

Power supply:	7V..24V-DC (100mA @ 12V/DC during 2..3sec. of measuring)
Accuracy:	±0,2%
Repeating accuracy:	±0,1%
Calibration:	<ul style="list-style-type: none"> Calibration for sand, gravel and grit is installed customizable material specific calibration storage of up to 15 user defined calibration curves calibration of dielectric permittivity is possible
Probe body:	waterproof sealed PVC (IP68)
Cable length:	1,5m
Size:	155 x Ø63mm
Rod length:	130mm
Rod diameter:	6mm

Technical data SONO-M2

Mobile moisture probe for sand, gravel and grit. The narrow wedge-shaped design with integrated electronics enables a deeper insertion into aggregate clusters.

Power supply:	7V..24V-DC (100mA @ 12V/DC during 2..3sec. of measuring)
Accuracy:	±0,2%
Repeating accuracy:	±0,1%
Calibration:	<ul style="list-style-type: none"> Calibration for sand, gravel and grit is installed customizable material specific calibration storage of up to 15 user defined calibration curves calibration of dielectric permittivity is possible
Probe body:	waterproof sealed PVC (IP68)
Cable length:	1,5m oder 3m
Probe length:	350mm
Rod length:	130mm
Rod diameter:	6mm
Optional accessory:	Telescopic Extension

Fast and easy moisture measurement of sand gravel and grit:



Check your goods directly on delivery:



All packed in a rugged carrying case:



NT (주)뉴텍계기

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