LABORATORY MOISTURE METER

UM2000-LTE

TO DETERMINE THE MOISTURE CONTENT OF ANY KIND OF POWDER AND/OR GRANULAR MATERIAL

The UM2000-LTE has been designed to determine moisture content in a very simple and reliable manner. The material is dried by a round halogen quartz lamp which applies a constant heat to the sample, at one or more temperatures that have been programmed accordingly by the operator.
The method is not influenced by the effects produced by colour, density, chemical properties or absorption which can render the measurements obtained by other methods unreliable. A sample of suitable weight is placed on the scale pan inside the drying chamber.

The test parameters are programmed from the keyboard beforehand by the operator and the test starts when the relative key is pressed or when the lid is closed. The unit has a large LED display to facilitate the reading of the data and a luminous bar to display the weight of the sample in proportion to the full scale and to monitor the weighing process.

BEST IN CLASS FOR:

WOOD BASED PANELS:
PB/SPB
OSB/LSB/FOSB
MDF/HDF

MAIN FEATURES

• RS-232 bi-directional data interface and USB for handling and storing test results and setup parameters • Various drying modes which are easy to programme and retrieve • Internal temperature control over a range of 50 ÷ 160 °C • Specially designed, user-friendly software • Calibration certified with primary gauging samples.

ADVANTAGES

• Elevated measuring accuracy • Test conducted rapidly • Good measuring repeatability • No maintenance required.

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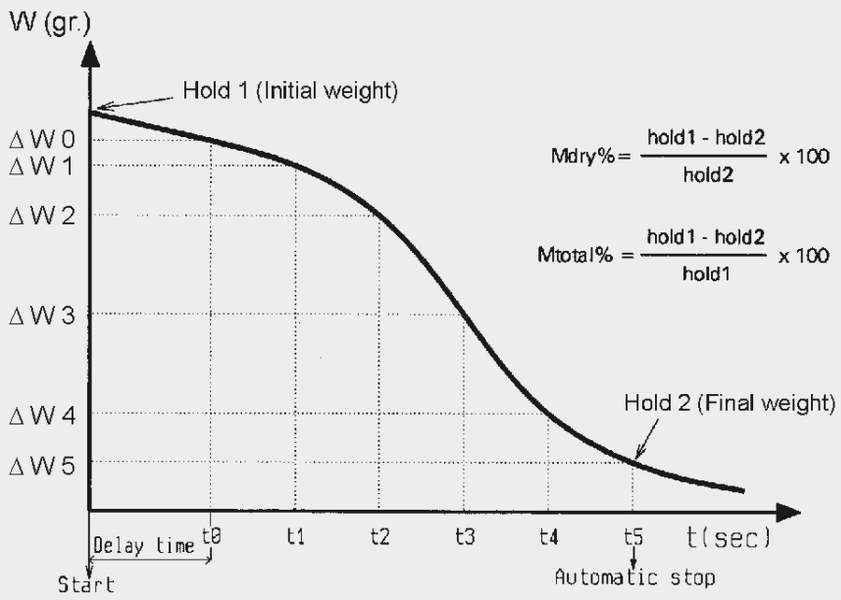
MOISTURE TEST
FILE NAME:          Surface
DATE:            24/02/2011
TIME:              18:33:25
SER NO:          00AE809387
TEST NO:                  1
USER NO:             000000
Result:      %ATRO MOISTURE
Heating:             Single
                       110 C
Interval:            10 Sec
Stop:                STABLE
                    0.002 g
                     60 Sec
Start:               MANUAL
INIT MASS:          4.823 g

MODE   TEMP    TIME     RESULT
Single  41C   00:10      0.17 %AM
Single  62C   00:20      0.90 %AM
Single  82C   00:30      2.03 %AM
Single  99C   00:40      3.32 %AM
Single 111C   00:50      4.42 %AM
Single 111C   01:00      5.10 %AM
Single 111C   01:10      5.47 %AM
Single 110C   01:20      5.77 %AM
Single 110C   01:30      5.98 %AM
Single 111C   01:40      6.16 %AM
Single 110C   01:50      6.30 %AM
Single 110C   02:00      6.44 %AM
Single 110C   02:10      6.56 %AM
Single 111C   02:20      6.66 %AM
Single 110C   02:30      6.73 %AM
Single 111C   02:40      6.80 %AM
Single 111C   02:50      6.89 %AM
Single 111C   03:00      6.94 %AM
Single 111C   03:10      6.99 %AM
Single 111C   03:20      7.04 %AM
Single 111C   03:30      7.06 %AM
Single 111C   03:40      7.08 %AM
Single 111C   03:50      7.11 %AM
Single 111C   04:00      7.13 %AM
Single 111C   04:10      7.15 %AM
Single 111C   04:20      7.18 %AM
Single 111C   04:30      7.20 %AM
Single 111C   04:40      7.20 %AM
Single 111C   04:50      7.20 %AM
Single 111C   05:00      7.23 %AM
Single 111C   05:10      7.23 %AM
Single 111C   05:20      7.25 %AM
Single 111C   05:30      7.25 %AM
Single 111C   05:40      7.27 %AM
Single 111C   05:50      7.27 %AM
Single 111C   06:00      7.27 %AM
*****     AUTO  STOP     *****
LAST TEMP:           111 C
FINAL MASS:        4.496 g
TEST TIME:           06:00
MASS LOST:         0.327 g
RESULT:            7.27 %AM
```

WORKING PRINCIPLE



TECHNICAL DATA	
MAX capacity	50 g
Reading division (d)	1 mg / 0.01%
Moisture resolution	0.01%
Weighing repeatability	2 mg s.d.
Moisture repeatability	10 g 0.05% sample
Min recommended weight	2 g
Environmental temperature	0 ÷ +40 °C

AUTOMATIC CALCULATION PROGRAMMES	
% of moisture in relation to the initial weight	Initial mass - dry mass / initial mass
% of solids	Dry mass / initial mass
ATRO % M	Initial mass - dry mass / dry mass
ATRO % S	Percentage of solids/dry base
CRITERIA FOR STOPPING THE DEVICE AUTOMATICALLY	
Stop when three consecutive results are identical	Interval between one readout and the next programmable from 5 to 99 sec.
Stop when three consecutive results are identical or at end of maximum time programmed	Time and readout intervals programmable from between 5 and 99 sec.
HEATING CRITERIA	
Traditional drying	Gradual heating to the final temperature within the period of time set by the operator.
Step drying method	Heating to temperature 1 for x minutes, then to temperature 2 for x minutes, then to temperature 3 for x minutes (3 stages).
Quick pre-heat	The temperature rises to 30% beyond the temperature set and then falls to the temperature required. This procedure is useful for expediting test times for certain kinds of products.