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.

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.
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.