

# PROTIMETER MINI

## Moisture meter - instructions for use

The Protimeter Mini is used to measure the moisture content of sawn and planed wood and the very approximate moisture content of wood based and other semi conductive processed materials. The instrument is calibrated to give direct moisture content readings in the European redwood species Group A. Refer to Calibration Tables for Wood (supplied) for other wood species and any required adjustment. Verus have a number of free Datasheets on measuring wood and non-wood materials

### Using the Protimeter Mini

Remove the cap to expose the measuring pins. Switch the instrument on by pressing and releasing the O button. Ensure that the battery symbol is illuminated (if it is flashing, the battery should be replaced). Push the pins into the surface of the material to be tested two or three millimetres and observe the reading. Alternatively, take moisture readings by using the miniature electrode supplied on a separate lead and connect via the socket on the right hand side of the instrument. While the O button remains pressed the current reading is held on the display. After use, replace the cap and allow the instrument to switch off automatically.



% scale value	Auto switch off time
6	60 seconds
9	90 seconds
12	120 seconds
18	180 seconds
24	240

### Automatic Switch-Off Adjustment

To maximise battery life the instrument is programmed to switch off automatically after one minute. If desired the auto switch-off can be set to a longer time but this reduces battery life.

To change the auto switch-off, leave the instrument unused for one minute, press and hold the O button for three seconds until the LED adjacent to 6% mc starts flashing. As soon as the LED starts to flash, release the O button and then press repeatedly to select the desired auto switch-off time, as detailed in the table.

### Measurement Range and Interpretation

In wood when the meter is in correct calibration the Protimeter Mini measures the moisture content accurately from 10-28%, 28% is the fibre saturation point after which readings become progressively less accurate. In processed wood materials the instrument measures with an unreliable level of accuracy. The display measurement range is from 6-90, but values below 10 and over 28 are relative, they indicate changing levels of moisture

rather than actual moisture content. The colour-coded zones signify the moisture condition of the material under investigation. Wood in the **green** zone is in a safe air-dry condition. In the **yellow** zone moisture levels are higher than normal but not critical and further investigation is recommended. The **red** zone represents excessive moisture levels and if sustained, red zone moisture levels will lead to decay in wood.

### **Battery**

Depending on model the Protimeter Mini is powered either by one 9V battery or by two AA 1.5V batteries. Replace when the battery symbol flashes by removing the cover on the back of the instrument. Ensure correct polarity when inserting.

### **Care and Maintenance**

Store the instrument in its case in a dry environment. Remove the battery if the instrument is not in regular use. Spare 25mm electrode pins are supplied, to replace, remove the securing collets using a 6.5mm spanner.

### **Accessories**

A Hammer Probe for deep readings in softwood and also a larger Heavy Duty Hand Probe are available as stock items from Verus to plug into the Mini's 3.5mm socket. Both are supplied with 900mm of cable for ease of use.

### **To check calibration**

As a rough check at a single point the "Protimeter Check" device (supplied) may be used by touching the pin probes of the meter against the exposed wires. Readings should be 18%.



For increased certainty across the range of readings use the optional **VERUS Checkbox** (illustrated) which checks a meter at 3 scale points. For ISO 9000 accredited companies, or companies in EPAL, Kitemark or Trussed Rafter Quality schemes, regular use of a VERUS Checkbox kept in annual external calibration is the most practical way of achieving necessary traceability and accuracy.

The information contained in this leaflet is given in good faith. As the method of use of the instrument (and its accessories) and the interpretation of the readings are beyond the control of the suppliers/manufacturers, they cannot accept responsibility for any loss consequential or otherwise, resulting from its use.

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