Marrari
AUTOMAÇÃO

DATASHEET
HANDHELD METER · WOOD
EN

M51

Wood moisture meter, handheld and rugged

Instant dielectric reading: choose the density, place the sensor on the board and read the moisture on the display.



3–35%	0.1%	±1 p.p.	20 h
measuring range (dry basis)	resolution	accuracy on pine	continuous battery life

01 WHY USE IT

Know the moisture of your wood before sawing, drying or selling.

82 species in the table

Bulk density adjustable from 100 to 900 kg/m³, with a species table in the manual.

Instant response

Moisture shows on the display as soon as the sensor touches the board.

Automatic compensation

Compensates for wood temperature and operates up to 70 °C.

02 HOW IT WORKS

The M51 uses the **dielectric method**: the 55 × 105 mm sensor reads the board without drilling. Each measuring function is tied to the species' **bulk density** at 0% moisture.

1. **Switch on and set density**
   Use the table in the manual, from 1 to 90 (100 to 900 kg/m³).
2. **Place the sensor**
   Rest the sensing area on planed wood.
3. **Read the moisture**
   The result shows on the display as % dry basis.
4. **Adjust if needed**
   For rough wood or other species, compare densities 45 and 60 against the oven-dry method.

ADJUSTMENT

Right density, right reading

Measuring functions were built for solid planed wood. For rough wood or species not in the table:

- Measure with density 45
- Find the moisture by the oven-dry method
- Measure with density 60
- Interpolate to set the ideal density

03 SPECIFICATIONS



Technical data

Measuring range	3 to 35% (dry basis)
Resolution	0.1%
Accuracy	±1 p.p. on pine · ±2 p.p. on tropical woods
Densities	Adjustable from 1 to 90 (100 to 900 kg/m³)
Display	7-segment LCD, 3½ digits
Temperature	Operation up to 70 °C, automatic compensation

Mechanical data

Dimensions	130 × 75 × 26 mm
Sensor area	55 × 105 mm

For Sawmills · Wood kilns · Furniture makers · Incoming inspection

04 BATTERY, MAINTENANCE AND SERVICES

Battery
Li-polymer 3.7 V · 800 mAh
20 h of continuous use and 5 h to recharge. Use only the charger supplied by Marrari (5 Vdc · 1 A).

Yearly maintenance
Performed by Marrari
Firmware update and check against Marrari standards, once a year.

Umilab
Calibration and testing
Calibration and wood moisture testing by the Umilab laboratory: umilab@marrari.com.br.

Accessories
In the box
Charger and USB cable to connect to a PC.

Warranty
6 months
Made in Brazil, with support and training from the after-sales team: posvendas@marrari.com.br.

Documents
Related
M51 operating manual and Annex 05.a, setup and performance evaluation of handheld meters.

General specifications

Method	Dielectric, no drilling	Firmware	Version 350 (Jul 2019)
Range	3 to 35% (dry basis)	Battery life	20 h · 5 h recharge
Resolution	0.1%	Accessories	Charger and USB cable for PC
Accuracy	±1 p.p. pine · ±2 p.p. tropical	Documents	M51 operating manual · Annex 05.a