

**Introduction**

Congratulations on your purchase of the Extech MO280 Moisture Meter. This device non-invasively measures and displays moisture content (%) in wood, building products, and other materials. The MO280 can also detect moisture behind ceramic tiles or behind and under various floor or wall coverings, on fabric/cloth and on paper products. This professional meter, with proper care, will provide years of safe reliable service.

**Theory of Operation**

The square sensor on the rear of the instrument sends and receives a low power electromagnetic signal through the material under test. The LCD shows the average moisture content (in %) of the material under test to a max. depth of 3/4" (20mm). Moisture that is closer to the surface of the material under test has a greater effect on the average than moisture deeper in the material. The MO280 is an auto-calibration device; no user calibration is needed.

**How to use the MO280**

- Slide the rear power switch to the ON position
- IMPORTANT:** Hold the meter up so that the rear sensor is not covered by your hand or any surface or object. If the meter emits chirping tones, the sensor is entirely or partially covered
- Momentarily press the MEASURE button to activate the sensor (the LCD display will switch on)
- Press **and hold** the UP or DOWN button to select a material group 0 to 9 (see table below). When the desired group is displayed, release the button. The meter will briefly chirp
- Firmly press the meter to a smooth flat surface with the sensor side of the meter (back) touching the material under test and wait for the display to stabilize; Note the value on the LCD.
- The meter's audible tones will sound as the reading changes. A blinking reading with an urgent chirping sound indicates that the measurement is out of the range of the instrument's capability. Try another range by selecting another material group (see material group & range tables below)
- Press **and hold** the HOLD button to freeze a displayed reading
- If the meter goes into sleep mode, press the MEASURE button to wake it up. If the meter does not wake or if the low battery icon appears on the LCD, replace the 9V battery located in the rear battery compartment
- Turn the rear power switch to OFF when meter is not in use. This will optimize the battery life

**Measurement Considerations**

The thickness of the sample under test must be at least 3/4" (20mm). If the sample is thinner, use a stack of samples to measure. Also, the measurement area of the sample should be larger than the MO280 sensor area which is 1.6 x 1.6" (40 x 40mm).

**Technical information**

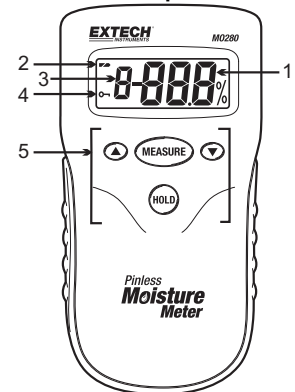
**Wood and Other Material Group Numbers**

No.	Name	No.	Name
4	Abachi	4	Mahogany
5	Abura	5	Maple, Bigleaf
6	Afrormosia	5	Maple, Red
5	Agba	6	Maple, Sugar
4	Alder	6	Meranti
5	Ash	6	Oak Red
4	Aspen	7	Oak, White
4	Basswood	7	Pecan
6	Beech	4	Pine Eastern White
6	Birch	4	Ponderosa
4	Cedar, Eastern	5	Red
3	Cedar, Western	4	Southern Yellow
5	Cherry	4	Poplar
4	Chestnut	5	Ramin
3	Cottonwood	4	Redwood
4	Cypress	8	Rosewood
7	Dogwood	5	Sassafras
5	Douglas Fir	4	Spruce
5	Elm	5	Sycamore
5	Gum, Red	5	Teak
4	Hemlock	6	Walnut, Black
7	Hickory	4	Willow
5	Koa	3	Cloth
5	Lauan, White	3	Cotton
3	Lauan, Red	9	Dry wall
5	Larch	3	Fabric
4	Limba	9	Paper
6	Locust, Black	5	Plywood

**Measurement ranges at 73°F (23°C)**

Group No.	Range
0	23.4 to 79.9%
1	33.4 to 89.9%
2	43.4 to 99.9%
3	6.8 to 63.3%
4	6.7 to 63.2%
5	5.4 to 61.9%
6	3.4 to 59.9%
7	1.6 to 58.1%
8	0.4 to 56.9%
9	0.0 to 56.5%

**Description**



- Moisture reading
- Low battery icon
- Material group number 0-9
- Data Hold icon
- Keypad

**Note:** Sensor, battery compartment, and ON/OFF switch on reverse side of meter

**General Specifications**

- Max. Measurement depth: 3/4" (20mm)
- Sensor area 1.6" x 1.6" (40 x 40mm)
- Battery type: 9V (rear compartment)
- Display: LCD with sleep mode
- Operating conditions: 32°F to 122°F (0°C to 50°C) 0 to 60%RH (non-condensing)
- Meter Dimensions: 2.75 (W) x 5.25 (H) x 1.0 (D)" (70 x 133 x 25.4mm)
- Weight: 5.6 oz (160g) with battery



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