



608-444-1493
www.capitalbeesupply.com

Operating Instructions for Honey Refractometer

Our portable refractometers are specifically designed for determining the water content of honey.

Specifications:

Measurement range: 10%-30%water

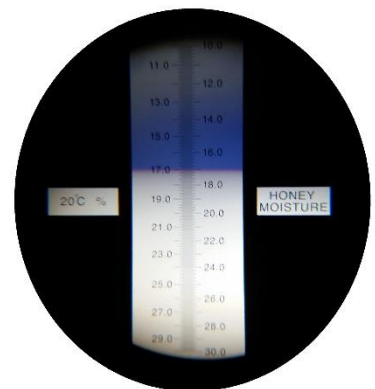
Resolution Factor: 0.2%water

Accuracy: $\pm 0.2\%$ water

(ATC)Temperature Compensation Range:10°C--30°C(50°F to 86°F)

Operating Instructions:

1. Aim the front end of the refractometer in the direction of a bright light source. While looking through the eyepiece focus the scale by turning the eyepiece clockwise or counter clockwise as necessary until the scale can be seen clearly. The background behind the scale will be blue in color.
2. Open the daylight plate. Clean the surface of the prism with a soft cloth. Place 1 to 2 drops of honey on the prism. Close the daylight plate. Press the daylight plate lightly so that the honey spreads across the prism without air bubbles or dry spots. Allow the sample to remain on the prism for about 30 seconds.
3. Look through the eyepiece and obtain the reading from the scale where the white and blue boundary coincide. This is the moisture content of the honey (in %)
4. After measurement, open the daylight plate and clean the honey off of the surface of the prism and the daylight plate using moist cotton cloth. Allow the unit to dry. **Do NOT immerse the prism or the refractometer in water.** Do not allow honey to stay on the prism more than 30 minutes as the honey may damage the prism (honey is acidic). The prism can get moldy if not properly cleaned.
5. Store the unit in its case in a dry and moderate location (between 50°F and 86°F).



Calibration:

Our refractometers come pre-calibrated and ready to use. However if recalibration should be necessary use the calibration oil (dioptric oil) and calibration stone (reference block) provided. ***With repeated contact dioptric oil can damage plastic and rubber, so please keep it away from the daylight plate as much as possible. Keep dioptric oil away from children as well.*** The calibration stone acts as the daylight plate. The dioptric oil reference reading is 19.6%.

1. Place one drop of dioptric oil on the long-side surface of the calibration stone. Open the daylight plate and stick the calibration stone (oily side down) on the surface of the prism. Press lightly on the stone with your finger so that it cannot slide down.
2. Rotate and adjust the calibration screw to make the white and blue boundary coincide with the reference reading. (You will need to remove the protective cap above the screw in order to make the adjustments)

Parts:

- 1 – Daylight plate and prism
- 2 – Calibration screw (under cap)
- 3 – Focus adjustment
- 4 - Eyepiece

