Green_Coffee_Bns

To use a sample of green coffee to calibrate a Sinar Moisture Analyzer

Coffee Laboratory provides verified wheat samples for the purpose of calibrating a Sinar Moisture Analyzer. We use long term storage wheat, which is designed to last for many years. As long as the sample is kept in a sealed container, and still weighs 180 grams, it can be used. If the sample has lost weight, either it has lost moisture, or part of the sample, and should not be used.

Certified oven tested samples (regular wheat) are also available at an additional cost.

Wheat is used, because it is easy to weigh out 180 gram samples, and because it can last a long time. If no wheat is available, a sample of green coffee, with a known moisture value, can also be used. First perform an oven test on a sample of green coffee.

Then you just need to take 180 grams of the same sample (You can break a bean to help get to 180 grams.) and find the capacitance (CODE 0) Value, from the above chart. Then follow the calibration instructions using the green coffee sample in place of wheat.

How to verify and if necessary re set a Sinar 6070 BeanPro moisture analyser using a calibration sample.

Important note: the calibration sample is an accurately measured sample of wheat supplied for the purposes of checking and re calibrating Sinar capacitance style instruments. The weight of the sample is crucial so please take great care not to lose any of the sample which will render the sample useless.

Calibration samples form the basis of all calibration work and check routines.

Calibration samples should be stored in an airtight container in a cool dark place once opened. If stored well the sample will typically have a shelf life of two to three months dependent upon use.

This information is intended for use with the Sinar 6070. If you own a different instrument, then please contact us for details.

Checking the instrument using a 180g sample:

1. Turn the instrument ON.

2. Using the loading hopper, pour the 180g calibration sample into the Sinar BeanPro. Remove the hopper.

3. Use the Up and Down keys to select "0 Reference" and press Test. After approximately six seconds the results are displayed.

4. The H2O Result should be within +/- 0.5% of the capacitance value stated on the sample packet. The g/l reading should be 670 g/l (+/- 7g/l). If either of the results are out of tolerance, then the instrument is out of calibration and you should proceed to the instructions for re calibrating the instrument which are detailed overleaf.

5. If the results are inconsistent, i.e. if with the 180g test sample the readings drift between tests by more than $\pm$ 3 g/l or more than 0.5% on the H2O reading then please contact Sinar Technology.

If the 'code 0' reading or the weight reading falls outside the tolerances stated, then the unit should be re-calibrated following the recalibration procedure overleaf.

Using the180g Wheat Sample
to recalibrate a
Sinar 6070 BeanPro portable unit

You will require a calibration sample, a calibrated (certified if necessary) temperature probe or thermometer and the Perspex sample loading hopper supplied with the Sinar BeanPro.
This information is intended for use with the Sinar 6070 BeanPro instrument. If you own a different Sinar instrument then please contact us for details on recalibration.

1. Turn the instrument ON.

2. Press the MODE key 3 times. The display will show "Password required for higher modes"

3. Enter the password 226 and press "Enter". The display will show "Bulk Density Menu 2"

4. Press the mode key twice to display "Hardware Menu Mode 4".

5. Select "Recal" (F2), followed by "Full" (F2) followed by Continue (F1).

6. Carry out the procedure as instructed by the instrument display.

7. Using the sample loading hopper, load the calibration sample into the silver bowl. Wait for the count down timer to reach 0.

8. Enter the 'Code 0' (capacitance or C0) value written on the sample packet using the "F" keys and press ENTER.

9. Place a temperature probe/thermometer into the grain at the front of the cell near the black block. Once the temperature reading on your thermometer has stabilised, enter the temperature value into the instrument using the "F" keys followed by ENTER.

10. Hold down F2 until the instrument displays "Complete". When the procedure is complete you are given the option to check the hardware by pressing, Yes (F1).

    The displayed values should read:

    M 180 (±1)   T X (±0.5)   C Y (±0.3)
    Where: X = Temperature shown on the temperature probe
           Y = Code 0 value shown on the foil sample bag

11. Retest the analyser using the procedure overleaf. If any of the readings are out of tolerance after recalibration, contact Coffee Laboratory for assistance.

VIII: Full Hardware Calibration

You will require a calibration sample, a calibrated (certified if necessary) temperature probe and sample loading Hopper.

Models: AP, G3, C6 and F6

1. Turn ON the instrument.

2. With the instrument empty of sample: Press and Hold Down the CAL/AUTO key. When the instrument says `CAL' enter the password, this is factory set to 226 or 123. Press P to enter the password once it has been entered.

3. Press and Hold Down the CAL/AUTO key. The instrument will say H.CAL (Hardware Calibration) after approximately 3 seconds.

4. Press and Hold down the AVERAGE key until the unit starts to take an empty reading - approximately 3 seconds. The unit will display `C1' when complete.

5. Using the sample loading Hopper, place calibration sample carefully into the measuring cell. Now enter the CODE 0 value of the sample as typed on the sample packet. Press the KG/HLW button to enter this value into the analyzer's memory.

6. Place the temperature probe into the sample cell. Put it at the front of the cell near the black THERMISTOR BLOCK. Once the temperature reading has stabilised, enter the value into the instrument. Press the TEMP key once to enter the temperature into the unit's memory.

7. Press and hold the %H2O key until the unit starts to take a reading – you will hear it pulse. When the unit displays `C2' calibration is complete.

8. Check calibration by following procedures outlined in section III.