

Core Correlation

1. Once the peaked location on the mat cools, cut a core from the mat and determine the in place density at the lab.
2. Compare the core result to the PQI 380+ measurement at that location and calculate the difference.
3. If there is a difference, follow the steps above to adjust the correlation offset one last time.

Now that the PQI 380+ has been correlated to the core you should not need to change the offset for the rest of the job.

Other Helpful Hints

- Charge the PQI 380+ after each use.
- Clean the sensor on the PQI 380+ with WD-40 or citrus cleaner.
- Have a towel with the PQI 380+ at all times to keep the sensor dry.



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Rev-



PQI 380+
Pavement Quality Indicator

**Non-Nuclear Asphalt
Density Gauge
Correlation Cheat Sheet**

Correlating the PQI 380+ to the Mix

Correlate the PQI 380+ during the first hours of paving to the screed and then peak out the mat with a roller.

Example:

Based on the MTD for the mix, estimate what the screed is providing as a percentage of compaction. A good rule of thumb is 88%.

Use This Calculation:

$$\text{MTD} \times .88 = \text{Screed Density}$$

Therefore:

$$158.6 \times 0.88 = \mathbf{139.6 \text{ lbs/ft}^3}$$

If you are working in international units

$$2540 \times 0.88 = \mathbf{2236 \text{ kg/m}^3}$$

Use the PQI 380+ to measure five locations behind the screed before the break down roller, then write down the density value shown on the PQI 380+ screen for each location.

Let's Say:

124.0, 124.1, 124.5, 124.0, 124.2 lbs/ft³
or 1987, 1988, 1995, 1987, 1990 kg/m³
Compute the average of the five readings behind the screed.

So That:

$$\text{Average} = \mathbf{124.1 \text{ lbs/ft}^3} \text{ or } \mathbf{1989 \text{ kg/m}^3}$$

Compute the difference between the estimated screed density and average PQI 380+ reading behind the screed.

Finally:

$$139.6 - 124.1 = \mathbf{15.5 \text{ lbs/ft}^3} \text{ or}$$

$$2236 - 1989 = \mathbf{247 \text{ kg/m}^3}$$

15.5 lbs/ft³ is the correlation offset you need to enter into the PQI 380+ to read **139.6 lbs/ft³**, or 88% behind the screed. If you are working in international units, your offset is 247 kg/m³ that makes the PQI 380+ read 2236 kg/m³ or 88%.

Enter the correlation offset into the PQI 380+ (Refer to the PQI 380+ Quick Start Guide)

Now take the "Screed Correlated PQI" and work with a roller to "Peak the mat".

Peaking the Mat

1. Pick a location and measure the density with the PQI 380+.
2. Use the roller and roll that part of the mat.
3. Measure again with the PQI 380+ and note the increase in density.
4. Continue this process until the density on the PQI 380+ does not go any higher.
5. This peak or maximum value is the density you need to achieve on your finished mat.