

Our tests were done on concrete precast wall panels of the same size and shape, poured side by side with the same concrete mix design and cured at the same time inside our production facility.

Both panels had thermocouple lines placed in them at the same locations to transmit the temperature of the curing concrete to the SureCure cylinders inside of the Quality Control Lab.

One panel was cured under the normal plant practice of covering with plastic tarps and curing with propane and the other panel was cured with the Powerblanket.

We found that the panels cured with the Powerblanket cured an average of 20 degrees higher than the panel cured with propane.

The precast panels were cured for 14 to 16 hours and then the concrete release cylinders were tested. The average release strength with the Powerblanket was 662 psi higher than the propane cured cylinders.

Cost to cure with the Powerblanket was estimated to be \$1.07 after checking the amperage draw for 16 hours of cure, the panel cured with the propane was estimated to be \$63.35 for 16 hours of cure, which did not include the cost involved in transporting the propane tank to be filled, covering of the form and the setup of the propane heater. The cost difference to cure the panel with the Powerblanket versus the propane is \$62.28, which is a 5921% cost difference.

When compared to steam curing the estimated cost would be \$432.00 for 16 hours of steam curing versus \$19.26 for 16 hours for the Powerblanket, which is a difference of \$412.74 or 2243%.

All testing was done under normal plant procedures and ASTM and PCI standards were followed during the process.

Arvil Evans
Quality Control Manager

