

**INDUSTRIAL FACILITY**

CASE STUDY

INDUSTRIAL MANUFACTURING - MISSOURI

This fortune 500 company had a manufacturing facility with sensitive air movement requirements, while having challenging heat stress problems for both workers and product manufacturing. A total of 221,000sf of Insolcorp's PCM was installed to the underside of existing metal roof deck.

Problem

- Heat load from ovens, machinery & process equipment had negative impact production in warm months.
- Ambient temperatures and internal heat load results in high plant heat index and lower worker productivity.
- Production declined with ambient temperature increase

Solution

- Installed 210,000sf of Insolcorp's PCM mats to underside of metal roof deck.
- Insolcorp PCM absorbs plant generated heat load and drops plant temperature to improved working environment.

Results

- Factory peak temperature reduction in excess of 20 degrees F
- Factory production levels now remain consistent throughout the year with no increase in operating expense (HVAC, or maintenance).
- Dramatic improvement in worker comfort and productivity.

1st Location: Resulted in 3 more installed facilities

VOLUME OF PCM INSTALLED:	210,000sf
INSTALL TYPE:	Under Roof Deck
BASELINE DATA:	Client Measured hourly temps at worker level in 2016
PERFORMANCE DATA:	Constantly logged temps in 8 locations at floor & ceiling

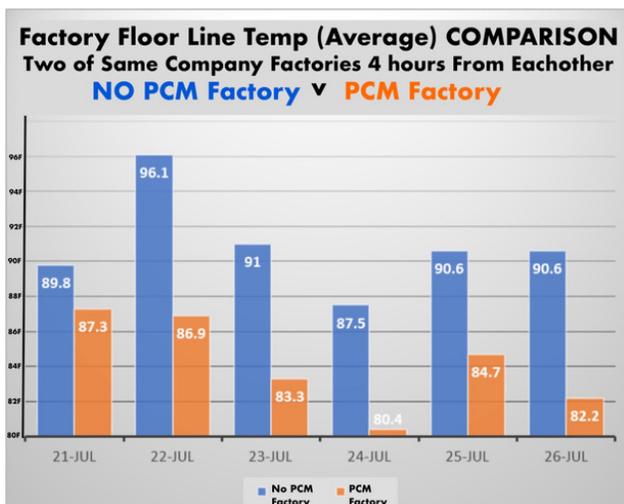
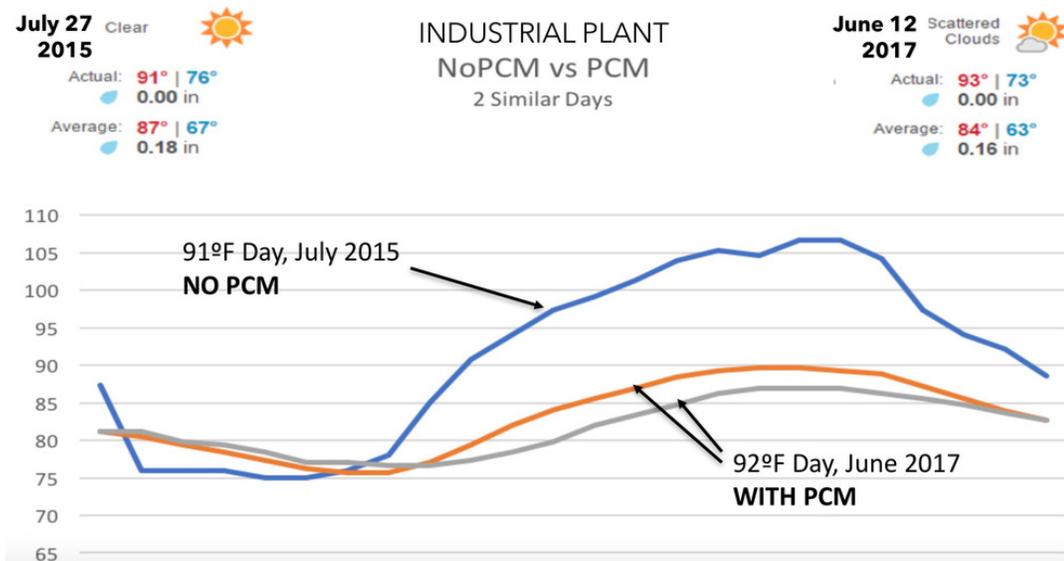
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COMMERCIAL OFFICE / FINANCIAL SERVICES INDUSTRY RESULTS

Peak reduction of 15°F - 20°F
Hourly average reduction of 8°F

In July 2015, the factory took hourly temperature readings at the worker level at the worst part of the plant, showing a peak of 106°F. After PCM was installed, that peak was reduced by over 15°F



Hourly temperatures at worker level were taken at a similar factory within 4 hours of the first install over the summer of 2017. The results showed strong average reductions and significant peak reductions.

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Our team members have noticed the change on the factory floor, and news is spreading to other factories. What's interesting is that we've also had our best month of production of any summer month.

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The second factory used for baseline comparison then installed PCM in September 2017. These results paved the way for a further 2 factories that have since installed PCM.

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