Syneffex™
Effective solutions

Sustainability Simplified.™
Very Simple.

Case Study

Solar Panels and Hot Water Tank

Award Winning Energy Saving and Asset Protection Coatings

GEOGRAPHICAL AREA:
Stockton, California

ISSUE:

Find a better solution for insulation of fuel oil storage tanks, kept between 68C - 72C, that doesn't cause corrosion or degrade rapidly in the salt air environment.

SOLUTION:

Heat Shield™ High Heat

Coverage: 9-12-coats

RESULTS:

- ✓ Surface temperature on pipes and tank were reduced from 200F to 80F.
- ✓ Lowered the overall cost of the system.
- ✓ Increased performance of system, especially in the winter months.

Heat Shield™ High Heat was applied to a solar hot water heater tank and piping. Surface temperature of pipes is over 200F. The pipes were coated with 12 coats of Heat Shield™ High Heat to drastically drop surface temperature. Syneffex™ Solar was also used on the interior case of flat plate solar panels to increase efficiency and reduce energy loss.

From Customer:

"I will tell you why Syneffex™ is so important for solar thermal installations is not only its great insulating ability of the tanks and piping, but its overall ability to work in the new high tech solar thermal installations, where the new flat plate panels are combined with more expensive evacuated tube panels, which saves the customer money by lowering the overall cost of the system, but still boosts wintertime performance.

Evacuated tube panels are 60% to 70% efficient in cloudy winter weather, whereas flat plate panels only are 10% to 20% efficient. Since evacuated tube panels are better insulated and designed to hold their heat with the vacuum, the flat plate panels are detrimental to this process of retaining heat and unfortunately act as reflectors of this heat when it is needed to be retained for maximum heat transfer to take place."

-continued on page two-

CASE STUDY ADDITIONAL

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"By treating the flat plate panels with Heat Shield™ we have improved the heat retention of the flat plate solar panels which allows the evacuated tube panels to transfer more of the heat they produce in cloudy weather to be utilized by the end user. Furthermore they still can cool down the system and protect the evacuated tube panels if needed.

During a maximum heat exchange the treated flat plate panel was 169.50 degrees F which was the same as the evacuated tube panels; the non treated flat plate panel was 123.80 F degrees. At night after the panels cool down they are the same temperature, but it is three to four hours before the treated panel cools down to the same temperature as the untreated panel.

I am getting ready to have the media come to see my house and Heat Shield™ will be one of the many items featured. If I did not have the Heat Shield™ I wouldn't have been able to heat my house since 1/1/08 till today (11/24/08)
without using natural gas or wood pellets. I have included some pictures and your product is in every one of them. Thanks for a great product, patience, and your support."

-Kevin Lagorio
CEO and Founder
Universal Energy Group, Inc.