



Municipal Pound | Insulation Coating



Heat Reduction | Comfort Improvement













Original site review:

Nillumbik dog pound regularly suffered from over heating due to the hot metal roof just above the kennels.

We originally visited the site on November 9th 2015 for an inspection.

At maximum temperature for the day (at the nearest weather station) was 33C:

Station: Bundoora (Latrobe University)		Number: 86351		Opened: 1979		Now: Open	
		Lat: 37.72° S		Lon: 145.05° E		Elevation: 83 m	

2015 ▾	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Graph												
1st	27.9	19.6	20.9	30.1	22.5	11.2	12.1		17.0	23.0	27.4	25.2
2nd	41.0	22.3	25.9	17.2	21.6	10.0	11.2	14.2	17.9	27.8	15.7	18.2
3rd	39.6	21.4	23.2	20.3	18.5	11.8	10.7	10.3	13.9	30.7	19.5	23.9
4th	23.3	19.8	25.5		21.8	11.4	10.4	10.9	13.5	28.8	28.7	32.8
5th	24.1	26.8	18.8	19.6	16.8	13.9	14.0	11.5	14.5	34.0	24.3	29.0
6th	29.1	36.2	20.0	19.8	16.0	15.5	9.9	12.0	15.8	35.8	18.5	30.3
7th	38.3	35.5	23.0	16.6	15.3	13.2	14.3	12.5	13.3	17.6	16.7	29.0
8th	28.9	22.8	26.2	18.2	15.6	17.4	14.1	11.7	12.4	22.9	25.7	36.0
9th	17.5	28.0	24.5	19.0	18.4	13.6	12.8	12.7	14.5	30.0	33.0	26.3
10th	22.0	32.2	23.5	19.5	15.9	12.7	14.0	15.8	16.2	28.5	16.7	26.9
11th	27.7	36.0	26.0	24.2	15.5	14.0	13.5	14.4	19.5	26.8	21.8	20.0

At the time of inspection, the under side of the sheets were extremely hot to touch & you could feel the radiant heat in the small individual brick kennels.

The temperature readings from the underside of the sheeting showed why it was hot to touch:



Underside temperatures ranged from **79C-85C** inside the various kennels (1:49pm).

Ranger staff commented that in hotter weather, they would often have to return to the pound up to 3 times a day to hose down the kennels, in order to cool the dogs off.

The goal for the project was to increase the comfort levels for the dogs & free up ranger time in hotter months due to the regularly need in hosing down the dogs due to the overheating.

Original condition:

Below is an aerial view of the long, skinny line of kennels:



Work commenced on pressure cleaning the roof.

You can see below left is the original condition, next to it below right is partial completion of the cleaning process with demonstrates how dirty the roof had become:



Before cleaning:



After:

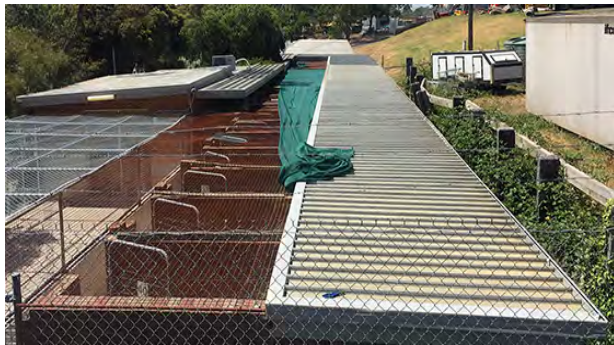


Coating process:

Half way through the first coat:



Before condition (post cleaning):



After:















Aerial photo of the completed coating:



Post project review:

We returned to the site on February 2nd 2016 to review the coating performance.

At maximum temperature for the day (at the nearest weather station) was 31.7C:

Station: Bundoora (Latrobe University)		Number: 86351	Opened: 1979	Now: Open									
		Lat: 37.72° S	Lon: 145.05° E	Elevation: 83 m									
2016 ▾		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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6th	26.3												
7th	22.2												
8th	22.5												
9th	24.4												
10th	33.3												
11th	27.9												

Inside the kennels it felt noticeably cooler & the underside of the metal was cool to touch.

The temperature readings from the underside of the sheeting confirmed



Underside temperatures ranged from **29-C-30C** inside the various kennels (1:30pm)

The product performance has exceeded the Nillumbik staffers expectations.

Comments were made that on the hottest days, temperature inside the kennels was actually regularly cooler than the ambient air temperature. A result we're delighted to hear.

Under-side sheet temperature:

9th November 2015 (33C) – **82 degrees**

2nd February 2015 (31.7C) – **29 degrees**

64% reduction in [underside] surface temperature.

* Nillumbik ranger Racheal Bryant was present for both before & after temperature readings *

Conclusion:

We are delighted with the result & hope the coating provides relief from the extreme radiant heat build up that has been achieved at the pound in recent years.

For any more information – please don't hesitating in contacting us.

For more information please, please refer to our website:

www.thermoshield.com.au

Kind regards



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