



National Pharmacies Distribution

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7 December 2009

Astec Paints Australasia Pty Ltd  
262 Marion Road  
Netley SA 5037

Dear Peter

Please find attached the temperature comparison that was realized by us in our South Australian Distribution Centre for the period 1 January 2009 to 28 February 2009, after it was coated with your Energy star products.

The table depicts the external ambient temperature recorded for the day as against our Distribution Centre internal temperature recorded by our temperature sensors, for that same day.

As you are aware, we have 17 evaporative air-conditioners which provide the cooling required for the Distribution Centre. At best, these air-conditioners provide a 12° celsius reduction of the internal air temperature, according to the A/C units technical specifications and depending on relative humidity (%) levels.

By applying your Energy Star coatings to the majority of the roof area and northern facing wall of the distribution centre, we were able to realize a benefit in reduction of the internal air temperature for our centre in several instances, over and above that which the air-conditioning system could contribute.

In addition to the benefits of using Energy Star products, we also requested the applicator to coat the skylights for the centre with your Energy Star product in order to stop the "glare" that was created by the afternoon sun, yet allowing the desired light to penetrate through to enable people to complete their tasks. This not only provided the Energy Star Heat Reflectivity but also maintained the ergonomic work environment for our staff by filtering the natural light through the skylights.

Having the roof area and northern wall coated with the Energy Star products has directly contributed to lower internal temperatures of the distribution centre, along with the benefit and additional benefit mentioned above.

Yours Faithfully

A handwritten signature in blue ink, appearing to read 'René Schuddebeurs', is written over a blue circular stamp or seal.

René Schuddebeurs  
National Pharmacies Distribution

Logistics Manager NPD

## National Pharmacies Distribution Centre - South Australia

Summary of temperature observations for the period 1 January 2009 to 28 February 2009.

Date	Maximum External Ambient Temperature	Maximum Internal Distribution Centre Temperature	Difference in Temperature	Maximum Reduction in temperature that can be created when all airconditioners are fully operational	Added Reduction over and above that which the air-conditioners achieved, by applying Energy Star Coatings
<b>Astec Energy Star Coating - commenced and in progress</b>					
1/01/2009	22.90 °C	18.40 °C	4.50 °C	12.00 °C	°C
2/01/2009	24.10 °C	19.50 °C	4.60 °C	12.00 °C	°C
3/01/2009	29.10 °C	19.80 °C	9.30 °C	12.00 °C	°C
4/01/2009	33.30 °C	21.60 °C	11.70 °C	12.00 °C	°C
5/01/2009	30.50 °C	20.90 °C	9.60 °C	12.00 °C	°C
6/01/2009	31.00 °C	21.30 °C	9.70 °C	12.00 °C	°C
7/01/2009	25.10 °C	22.30 °C	2.80 °C	12.00 °C	°C
8/01/2009	23.80 °C	22.70 °C	1.10 °C	12.00 °C	°C
9/01/2009	26.00 °C	22.30 °C	3.70 °C	12.00 °C	°C
10/01/2009	28.70 °C	20.60 °C	8.10 °C	12.00 °C	°C
11/01/2009	28.40 °C	20.20 °C	8.20 °C	12.00 °C	°C
12/01/2009	35.20 °C	22.00 °C	13.20 °C	12.00 °C	1.2 °C
13/01/2009	41.30 °C	24.50 °C	16.80 °C	12.00 °C	4.8 °C
14/01/2009	32.30 °C	22.30 °C	10.00 °C	12.00 °C	°C
15/01/2009	25.20 °C	22.70 °C	2.50 °C	12.00 °C	°C
16/01/2009	27.60 °C	20.60 °C	7.00 °C	12.00 °C	°C
17/01/2009	27.20 °C	18.80 °C	8.40 °C	12.00 °C	°C
18/01/2009	32.90 °C	20.60 °C	12.30 °C	12.00 °C	0.3 °C
19/01/2009	38.50 °C	22.30 °C	16.20 °C	12.00 °C	4.2 °C
20/01/2009	36.90 °C	22.70 °C	14.20 °C	12.00 °C	2.2 °C
21/01/2009	29.00 °C	20.90 °C	8.10 °C	12.00 °C	°C
22/01/2009	27.60 °C	21.60 °C	6.00 °C	12.00 °C	°C
23/01/2009	27.60 °C	20.60 °C	7.00 °C	12.00 °C	°C
24/01/2009	24.40 °C	19.50 °C	4.90 °C	12.00 °C	°C
25/01/2009	30.40 °C	21.30 °C	9.10 °C	12.00 °C	°C
26/01/2009	36.60 °C	24.50 °C	12.10 °C	12.00 °C	0.1 °C
27/01/2009	43.20 °C	24.80 °C	18.40 °C	12.00 °C	6.4 °C
28/01/2009	45.70 °C	27.70 °C	18.00 °C	12.00 °C	6 °C
29/01/2009	43.40 °C	27.70 °C	15.70 °C	12.00 °C	3.7 °C
30/01/2009	43.10 °C	28.10 °C	15.00 °C	12.00 °C	3 °C
31/01/2009	41.10 °C	27.70 °C	13.40 °C	12.00 °C	1.4 °C
1/02/2009	40.60 °C	27.70 °C	12.90 °C	12.00 °C	0.9 °C
2/02/2009	38.90 °C	27.70 °C	11.20 °C	12.00 °C	°C
3/02/2009	29.80 °C	25.50 °C	4.30 °C	12.00 °C	°C
4/02/2009	27.10 °C	24.10 °C	3.00 °C	12.00 °C	°C
5/02/2009	31.50 °C	24.10 °C	7.40 °C	12.00 °C	°C
6/02/2009	43.10 °C	27.00 °C	16.10 °C	12.00 °C	4.1 °C
7/02/2009	40.40 °C	24.90 °C	15.50 °C	12.00 °C	3.5 °C
8/02/2009	25.60 °C	19.50 °C	6.10 °C	12.00 °C	°C
9/02/2009	23.30 °C	22.30 °C	1.00 °C	12.00 °C	°C
10/02/2009	21.80 °C	21.30 °C	0.50 °C	12.00 °C	°C
11/02/2009	21.70 °C	21.60 °C	0.10 °C	12.00 °C	°C
12/02/2009	23.50 °C	23.40 °C	0.10 °C	12.00 °C	°C
13/02/2009	28.80 °C	24.10 °C	4.70 °C	12.00 °C	°C
14/02/2009	30.70 °C	21.30 °C	9.40 °C	12.00 °C	°C
15/02/2009	29.20 °C	20.90 °C	8.30 °C	12.00 °C	°C
16/02/2009	29.80 °C	23.00 °C	6.80 °C	12.00 °C	°C
<b>Astec Energy Star Coating - Stage 3 completed</b>					
17/02/2009	31.80 °C	23.00 °C	8.80 °C	12.00 °C	°C
18/02/2009	34.20 °C	23.40 °C	10.80 °C	12.00 °C	°C
19/02/2009	32.00 °C	22.70 °C	9.30 °C	12.00 °C	°C
20/02/2009	24.20 °C	23.00 °C	1.20 °C	12.00 °C	°C
21/02/2009	26.30 °C	20.20 °C	6.10 °C	12.00 °C	°C
22/02/2009	27.80 °C	20.20 °C	7.60 °C	12.00 °C	°C
23/02/2009	26.00 °C	22.30 °C	3.70 °C	12.00 °C	°C
24/02/2009	27.80 °C	19.10 °C	8.70 °C	12.00 °C	°C
25/02/2009	28.50 °C	20.60 °C	7.90 °C	12.00 °C	°C
26/02/2009	38.10 °C	23.00 °C	15.10 °C	12.00 °C	3.1 °C
27/02/2009	30.00 °C	22.70 °C	7.30 °C	12.00 °C	°C
28/02/2009	27.70 °C	19.80 °C	7.90 °C	12.00 °C	°C



## NATIONAL PHARMACIES DISTRIBUTION CENTRE

Number of evaporative coolers	17
Maximum reduction in temperature that can be achieved when all evaporative coolers operational	12 °C
Number of Kilowatts per evaporative cooler	8 kW
Number of hours operational for period 1/1/2009 to 28/02/2009 based on 24 hour day	1416 hrs
Number of Kilowatt hours for site in period 1/01/2009 to 28/02/2009	192576 kWh
Charge per kWh	\$ 0.200 per kWh
Total cost of power for the period 1/01/2009 to 28/02/2009	\$ 38,515.20

### CONCLUSION

Cost of power for every 1° Celsius in temperature for period 01/01/2009 to 28/02/2009

\$	3,209.60
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Kilowatt hours for every 1° Celsius in temperature for period 01/01/2009 to 28/02/2009

16048 kWh
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### SAVINGS USING ENERGY STAR COATINGS

Based on the data that has been collected by the Distribution Centre, Energy Star coatings have been able contribute to a maximum 6.4°C variance in internal temperature being achieved in the Distribution Centre for the period.

The evaporative coolers do not have to be switched on until the building heats up by a further 6.4°C.

Accordingly, this can be translated to the following savings using the above charge per kWh period 1/01/2009 to 28/02/2009;

Temperature Savings	6.4 °C
<b>SAVINGS</b>	
Power Costs using above temperature savings	\$ 20,541.44
Kilowatt hours using above temperature savings	102707 kWh
Greenhouse Gases Reduction using above temperature savings	103 CO <sup>2</sup> tonnes

The above data has been compiled using the temperature data provided by National Pharmacies Distribution Centre for the period 1 January to 28 February 2009, the technical specifications of the air conditioning systems installed at this site for the above named period and an assumed charge rate per kilowatt hour that is stated above.

It should not be read that the stated kilowatt hour rate is the charge rate that is being paid by National Pharmacies.

The above example depicts the savings that can be achieved using the data provided and each person is required to perform their own specific calculations to arrive at the savings for their own specific site.

Accordingly, Astec Paints Australasia Pty Ltd does not warrant the applicability of the above toward any other site.