

The following thermal graph depicts the variances in internal ambient temperatures that were obtained when comparing two identical* school portable buildings at Staughton College in Melton, Victoria.

Eco Express Thermo data loggers were installed in both school portable buildings at the same time to record the internal ambient temperatures associated with each building in the period between 11 November 2009 and 5 January 2010 and at regular intervals.

The unaltered data results were logged and produced the Eco Express Thermo 2007 graph below.



Building 1 was not coated with Energy StarTM coatings from 24/11/2009 to 13/12/2009. Energy StarTM coatings were applied by the Astec Accredited Applicator – Cocoon Coatings Pty Ltd during the weekend of the 12-13 December 2009, as supplied from Astec Paints Melbourne Pty Ltd. From the 13/12/2009 to 5/01/2010, Building 1 had Energy StarTM coatings applied to its roof.

Building 2 did not have Energy StarTM coatings applied for the whole of the period from 24/11/2009 to 5/01/2010.

CONCLUSION

It can be concluded from the internal ambient temperatures recorded in the graph above, that **Building 1 was** at times between 24/11/2009 and 12/12/2009 some 5°C hotter than Building 2.

After Energy StarTM coatings were applied to Building 1's roof, **Building 1 recorded temperatures some 5°C cooler than Building 2 during the period 14/12/2009 to 5/01/2010** and this benefit transpired immediately after the application of the Energy StarTM coatings to the roof of Building 1.

The internal ambient temperatures of Building 1 never exceeded that of the uncoated roof of Building 2 during the period 13/12/2009 to 5/01/2010, importantly noting that the performance of the Energy StarTM coatings excelled when the ambient temperatures were hotter as noted in the above graph on the days of the 16th, 17th, 23rd, 30th and 31st of December 2010.

Importantly, the above graph also infers an **internal ambient temperature drop in Building 1 by some 10°C** when compared to the roof of Building 1, not being coated with the Energy StarTM coatings.

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