



A large retail centre in Melbourne was experiencing difficulties with over heating during the warmer months. It was recognised by the centre's consultant engineers that the majority of the heat was entering through the roof from the solar load. A normal galvanised metal roof will often attain temperatures approximately twice that of the ambient shade temperature – on a 30°C day, the roof can be as much as 60°C transforming it into a large overhead radiator.

This model, produced by the Queensland University of Technology, shows the effect of SkyCool on the temperature of the air immediately below the roof – much of which is uninsulated. Notice that, at its peak, SkyCool has the potential of bringing an overall temperature of 65°C down to about 25°C. The occupied level of the building would experience a resultant temperature move from around 38°C to around 24°C.

Even while SkyCool was being applied to this 13,000m² roof in December, 2003 the occupants of the building commented to the applicators that they noticed a remarkable improvement in the internal temperatures. Some noted that it had dropped 10°C to 15°C at the occupied level – in line with expectations predicted the university's model.