New paint technology could offset over 24 tonnes of carbon per year for the average Australian home, according to not-for-profit program GreenPainters.

‘Heat-reflective coatings are the biggest contribution the painting industry has made to combat global warming,’ says Mr Wurm, GreenPainters Managing Director. ‘This technology, when applied to the exterior of a building, has been proven to reflect up to 50% of solar radiation, which not only directly lowers heat build up in the atmosphere, but also helps buildings improve their energy efficiency, resulting in significant cuts to cooling costs and energy usage. The direct and indirect effects of this technology should be considered by specifications and consumers for its ability to offset carbon emissions.’

In May, research conducted by Berkeley University in California prompted U.S. Energy advisor Professor Steven Chu, to say that the entire world’s roofs should be painted a reflective colour. He said the unusual proposal would mean homes in hot countries would save energy and money on air conditioning by deflecting the sun’s rays. More reflective surfaces could also slow global warming by reflecting heat into space rather than allowing it to be absorbed by dark surfaces where it is trapped by greenhouse gases and increases temperatures.

From Dubai to New Delhi to Osaka, Japan, reflective roofs have been embraced by local officials seeking to rein in energy costs. In the United States, they have been standard equipment for a decade at new Wal-Mart stores. More than 75 percent of the chain’s 4,268 outlets in the United States have them.

California, Florida and Georgia have adopted building codes that encourage cool-roof installations for commercial buildings.

Australian paint manufacturers have led the research into heat-reflective coatings, and their products are being used widely in the middle East, Japan and the U.S. to improve energy efficiency.

‘We hope this technology is adopted the way it has been overseas,’ says Mr. Wurm. ‘It is an effective way to avoid the urban heat island effect, which is caused by cities absorbing heat. Usually this heat combines with chemicals in the atmosphere to produce smog, and also increases the temperature in a suburban area by up to two degree more than the surrounding countryside.’

The products work by using nano-ceramic pigments to reflect infra-red radiation. The lighter the colour the higher the reflectivity gains are. But this technology allows even dark colours to reflect radiation and avoid heat build-up in the building envelope.

‘As the issue of climate change takes hold on the building industry, we expect more and more interest will be shown in using this technology to offset carbon emissions. Ten square meters of reflective roof can offset 10 tons of carbon’, says GreenPainters. “In addition, consumers can save between $300 and $1000 a year in reduced cooling costs, which translates into an extra saving of one to six tones of carbon per year.”

GreenPainters has developed a training program for painters to educate them about how they can play their part in slowing climate change. The course focuses on cool coatings theory and application techniques to
help contractors promote the products to clients. Contractors wishing to participate should contact GreenPainters to register. GreenPainters will be running seminars at the HIA Build Green Exhibition at the Melbourne Exhibition Center Oct 16-18th.

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