



Plaster chalks up green points

Stephanie McDonald explains how plasterboard has undergone several changes in response to sustainability concerns.

Sustainability in the building industry has largely been about two key aspects – design and materials selection. With the introduction of rating systems such as Green Star and NABERS, the spotlight is now even stronger on using environmentally friendly products.

Plasterboard, as a virtually ubiquitous building product, is worth its fair share of attention.

There are several environmental benefits to plasterboard. The product has low toxicity, according to David Baggs, CEO at ecospecifier, and is a relatively benign product which does not require a large amount of energy to manufacture.

Bill Thompson, R&D manager at CSR and representative of the Gypsum Board Manufacturers of Australasia (GBMA) on the

Building Products Innovation Council (BPIC), says it is also a low impact product because:

- of its high strength-to-weight ratio and the use of strong recycled paper outer surfaces
- the plaster core is made from reserves of gypsum
- the manufacturing process involves low temperature dehydration, so it is not as energy intensive as other building products.

Thompson says the two biggest sustainability impacts associated with plasterboard have been the introduction of the Building Code of Australia and the need to minimise the environmental impacts associated with the manufacture and distribution of the product.

“The plasterboard industry has always focused on waste and

energy minimisation as a means to reduce manufacturing costs,” he says.

“From a previously internal manufacturing focus, this approach has over recent years extended to understanding and minimising impacts from the ‘cradle to grave’ – in other words, from the extraction of raw materials, their transport, conversion to finished products, installation and finally end-of-life disposal.”

This cradle to grave approach is one the plasterboard industry has actively pursued. In 2007, the GBMA published the findings of a life cycle assessment of plasterboard and found the two main negative impacts related to global warming potential and water depletion, according to Thompson.

“Global warming potential reflects the amount of greenhouse

