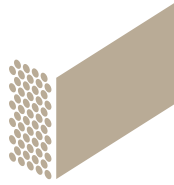


hebel[®]
The better way to build



Hebel – better to build with,
better for the environment



HEB - 2010
Environmentally Innovative Products



Hebel – better to build with, better for the environment

Hebel is Australia's leading manufacturer of Autoclaved Aerated Concrete (AAC), an amazingly innovative lightweight concrete building material that was developed in Europe over 70 years ago and which we introduced to Australia more than 20 years ago.

It is also one of the most environmentally responsible building materials in the world.

Why Hebel is better for the environment

Independently assessed

In an independent Life Cycle Assessment undertaken by Good Environment Choice Australia (GECA), Hebel was found to have clear benefits across all key environmental criteria.

To be awarded GECA accreditation, products must demonstrate a 30% lower impact than alternatives. Hebel uses 61% and 64% less embodied energy and 64% and 55% less greenhouse gas emissions than the comparative products, concrete and brick veneer respectively. Hebel continues to strive to set new sustainability standards in building materials for residential and commercial construction.

Mr. Petar Johnson, Chairman of GECA stated that "Hebel products and systems have clear environmental performance benefits compared to most other widely used products in the construction industry in Australia. We expect to see a growing demand for this produce line as more architects, builders and construction firms grapple with the environmental performance of their designs. Hebel should be recognised as the leading wall, floor and sound barrier solution for Australia."

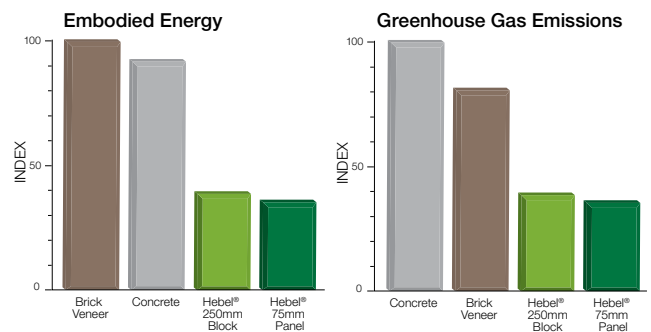
The GECA label is a clear and credible guide for consumers who want to purchase products with lower environmental impacts and it is the only environmental labeling program in Australia that independently assesses the environmental performance of products from a life cycle perspective.



HEB - 2010
Environmentally Innovative Products

Embodied energy

Hebel PowerPanel uses over 60%* less embodied energy than comparative concrete and brick veneer wall systems.



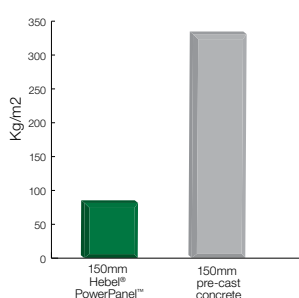


Production

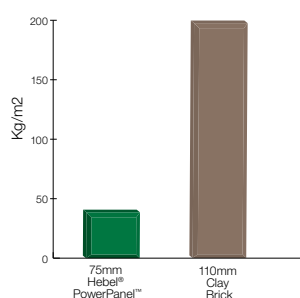
The low bulk density of Hebel AAC means that less than a quarter of the resources and raw materials are used in its production than for other masonry products. All raw materials are sourced locally to minimise energy used in transport.

We have a passion to reduce waste through extensive recycling. Production waste, slurry and even the steam generated are recycled back into the manufacturing process while waste steel and oil are recycled off site. Even the non-toxic citrus-based solvents used for cleaning are recycled.

Raw Material Usage Comparison



Raw Material Usage Comparison



Between 4 and 5 times the m² of wall can be constructed from Hebel® products using the same quantity of raw materials when compared to concrete or conventional clay brick construction.

On site

The combination of panel sizes, designed to suit standard building modules and the ease of working with standard power tools means there is very little waste on site resulting in less landfill. We are also investigating the possibility of recycling site waste back into the manufacturing process.

Energy efficiency

The unique combination of thermal resistance and thermal mass make building with Hebel an ideal choice for meeting Australia's stringent building regulations.

The thermal performance of walls and floors can significantly affect the energy rating of buildings. A 75mm Hebel panel has up to 5 times the R-Value of a 110mm house brick# and a 250mm Hebel Block has 11 times the R-Value. Using Hebel in walls and floors will provide increased thermal performance that can allow more flexibility with other design aspects of your building.

The thermal efficiency of Hebel systems means a more comfortable environment with less need for heating and cooling which can have a big impact on your energy costs and carbon footprint.

Hebel products are non-toxic and don't emit any gases, another reason why they are an increasingly popular choice for healthy, environmentally responsible buildings.

Our industry environmental commitment

Hebel understands a reduced carbon footprint for our building materials is only one aspect of helping to reduce environmental loads. That is why Hebel is a member of the following environmental organizations in conjunction with other CSR™ divisions:

- Good Environmental Choice Australia
- Green Building Council of Australia
- HIA GreenSmart
- EcoSpecifier
- Habitat for Humanity

CSR Hebel is not only committed to promoting its own solutions for real reductions in greenhouse gas emissions but also supporting the industry to build in smarter and more energy efficient ways. Only through a collective effort can we reduce global warming through materials and designs that have a lower environmental load.

Better to build with

Hebel delivers all the benefits of traditional masonry such as strength, acoustics, fire and pest resistance with much lower embodied energy and environmental impact.

Hebel has developed high performance block and steel reinforced panel systems for all types of construction including:

- New Housing
- Multi-Residential
- Alterations and Additions
- Commercial and Industrial
- Civil Sound Barriers
- Outdoor/Indoor Living

By choosing Hebel for your project you can feel good in the knowledge that you have chosen a building material that is better for our environment than traditional masonry in comparable applications.

Hebel is not only a great environmental choice, it has a number of other performance advantages over traditional masonry including:

- Lighter and faster to install
- Effective noise control
- Outstanding fire performance
- Thinner wall systems for extra space
- Great looking rendered finish

Lighter & faster to install

Hebel panels are up to 1/3 of the weight of brick and, since a single panel can cover the area of 90 standard house bricks, they can really go up fast, speeding up construction and securing your building sooner.

Effective noise control

CSR Hebel has worked closely with acoustic experts and testing authorities to develop systems that will provide superior sound insulation of interior and exterior walls and floors.

Noise is a particular problem in modern homes and commercial buildings. CSR Hebel protects the peace and privacy of residents and workers by turning internal and external walls and floors into effective sound barriers.

In multi-residential building Hebel is seen as a leader due to its success in combating the problem of noise traveling between apartments.

Outstanding fire performance

Hebel provides excellent fire-resistance, an important consideration in many areas of Australia.



Many Hebel systems achieve a four hour fire rating (the maximum under Australian Standards), more than twice that achieved by traditional materials such as bricks. Additionally, by providing solid, loadbearing walls, Hebel blocks negate the need for timber framing, eliminating fuel for fire. In bushfire-prone areas, Hebel Block and panel systems can be used in walls, floors and verandahs in all BAL zones including BAL-FZ.

Hebel is not a food source for termites and when using our single skin solid block walls will not harbour other pests. There is no timber in the walls to feed termites and no cavity for vermin to live in.

Space and style

As Hebel panel wall systems are thinner than traditional masonry alternatives, they allow a greater internal living area for the same building dimensions and provide greater design flexibility.

Hebel is an amazingly versatile building material, with a surface finish that gives you the opportunity to achieve your own creative effects with an infinite palette of colour and texture combinations.

Hebel – The better way to build

Hebel is a quality building product, and is backed by CSR Building Products Limited. For further details on building with Hebel systems visit our website www.hebelaustralia.com.au or call 1300 369 448

For more information on the environmental benefits of Hebel please call

1300 369 448 or visit www.hebelaustralia.com.au

