

## GREENEST BRICK ON THE BLOCK

Victorian company Geo Brick seeks up to \$1 million in funding to break into \$2.8 billion industry.

Profile by GENEVIEVE BARLOW

### Features of the Geo Brick

- Geo Brick produces 0.2kg down to 0.035kg of CO2 in production depending on the amount of stabiliser used, compared with 0.74kg of CO2 for the fired house brick
- Air-dried rather than fired and kiln-dried.
- Different composition makes it slower to cool or heat.
- Made from fine gravels and clays, stabilisers and water repellent.
- Water and salt resistant
- Weighs 3.7kg
- Same size as standard house brick – 230mm x 110mm x 76mm.
- Comes in three choices of compressive strength, varying with the amount of stabiliser. Is compression tested to 27 Mpa (megapascals)



Geo Brick director and investor Andre Farley with brick inventor and company CEO Rory Stainton at the Bealiba brick plant

**Making a building brick using just 5 per cent of the energy conventional products consume is Rory Stainton's way of addressing climate change.**

Stainton, a long-time pressed-earth brick maker from central Victoria, relies on air and sun, rather than a kiln and gas or electricity, to dry them. But their dimensions, content and design had failed to interest Australia's conventional construction industry – until now.

Stainton has experimented with the brick's contents, reshaped it so it resembles a conventional house brick and is launching into Australia's \$2.8 billion brick industry, convinced he has the greenest brick on the market.

His brick weighs and looks the same as a standard fired brick but contains natural clay, giving it a thermal advantage by being slower to heat and cool. And because it's air-dried, not fired, less energy is used in its production. It would save as much as six tonnes of carbon dioxide-equivalent for every average house lot, or 10,000 bricks.

Stainton has pegged a quarry claim of about 20 million cubic metres – enough to make eight billion bricks – around Bealiba where he lives. Half of it is private land and the rest is Crown Land under native title to the Dja Dja Warrung community who will earn soil-mining rights from the venture.

The brick assumes the natural colours of the earth from which it's made. It can be used on internal and external walls and requires no firing but is stamped out under high pressure from a brick-making machine driven by a 10 horsepower motor and flywheels. The Australian-made machine can produce about 10,000 bricks in an eight-hour day or about five million annually through double shifts. These are left to dry in the open air for a month to six weeks.

"They feature a really smooth finish and outperform the fired brick on many fronts.

They absorb less water and shrink and grow less but the biggest bonus is the beautiful soft pastel colours they come in. Other features are consistency of colour and no cracks," Stainton says.

Geo Brick, the company launched by Stainton and his business partner Andre Farley, has earned two substantial grants to help fund a chunk of the work needed to establish its green credentials.

One, \$70,000 from Sustainability Victoria, a government arm searching for low energy and renewable energy innovations, will fund an energy 'life-cycle analysis' and quality assurance plan of the brick. Geo Brick will match it dollar-for-dollar. The Federal Government's agency for assisting business innovation, Aus Industry, also will fund the company's business and marketing strategy to the tune of \$70,000.

Stainton and Farley feel they're on solid ground to launch Geo Brick. Now they're seeking an investor with \$500,000 to \$1 million to get them rolling.

"That will help us push up raw material, buy automated feed hoppers, pallets and cement, and will pay wages for the first two million bricks," Stainton says.

Melbourne architect Riccardo Zen, whose company Zen Architects specialises in ecologically sustainable design, says the Geo Brick product has emerged just as an increasingly energy-conscious construction market is beginning to question where its building materials come from, how they're made and how much water they use.

"Information is still thin on the ground in terms of the full environmental impact of materials used in construction but for those in the know looking to select materials that are energy efficient from the cradle to the grave, this is probably the Holy Grail," Zen says. He says the brick is likely to be taken up in the commercial sector before the residential sector where regulatory changes are slower to imbed sustainability. 