Building profits with eco-friendly walls

Greencast has the formula to make what is greener and more efficient. By Victor Katheyas

First, it has greater compressive strength than traditional brick walls. This means the wall can withstand more pressure than brick.

The GC ecoWall is also better than other hollow core walls in soundproofing. Third, it can be installed more quickly than brick walls, a property which translates into significant cost savings by contractors.

Here is why: Bricklaying is time-consuming. It entails lifting large amounts of brick and handling a messy mix of sand and cement.

And because of concerns about stability, work on putting up a brick wall has to be stopped after every three metres and continued only the next day. After the wall is up, plastering also entails waiting a day after the plaster is applied.

Installing a precast GC ecoWall, on the other hand, involves hoisting it and applying an easy skim coat. Expensive plastering is unnecessary.

Beginnings

In September 2002, the Building and Construction Authority awarded a $1.2 million research and development grant to a research team in the Department of Civil Engineering of the National University of Singapore (NUS) to encourage development of technology that would make construction faster, cheaper and greener, said Mr Tan.

The mission laid before NUS took on a more urgent cast in light of the bans on sand exports by neighbouring countries, which had driven up sand prices and the cost of construction.

NUS’s Department of Civil Engineering, then led by Professor Wee Tiong Huan, came up with an eco-friendly way to build walls, which led to the birth of the GC ecoWall.

The technology was patented by NUS in 2006. Professor Wee, as lead inventor, saw the potential in the product if it were to be accepted by the industry.

At around this time, he met Mr Tan, who was then running his own real-estate agency; the agency’s focus on industrial properties had given Mr Tan intimate knowledge about the construction industry.

The academic and the realtor then teamed up and incorporated Greencast in late 2010.

NUS exclusively licensed the technology to the company under an arrangement in which the company pays the university royalties; NUS, on its part, continues to develop the technology pipeline and monitor market demand.

Prof Wee got a foot in the industry’s door through his discussions with GuocoLand, which led to the GC ecoWall being used in two of GuocoLand’s residential developments.

Thus began the process of seeking out contacts in the construction industry and convincing them of the benefits of the GC ecoWall.

To date, these precast wall panels have been used in about 30 sites here—a mix of residential, commercial and industrial building projects. Mr Tan estimates that each project is worth, on average, about $100,000.

Greencast now employs nine workers. Its turnover for the 2011 financial year was $700,000, and it is expecting both turnover and profitability to grow.

A number of Greencast’s core strengths explain its ability to turn profitable relatively quickly.

First, the company keeps communication channels open among all those involved in the installation of the walls—from the labourer right up to customers and suppliers. This gives the company all the feedback it needs to be responsive to the market.

Second, the company is cash-rich, which enables it to fund its operations out of its cashflow without the need to rely on bank loans.

Third, it manages this cashflow prudently, which goes some way to ensure that the company is able to outstrip difficult times. This prudence is seen in the company’s premises and office space being modestly fitted out.

The future

For Greencast, producing an environmentally friendly product is good for both the environment and its bottom line. By using other firms’ by-products—granite dust and activated carbon powder, for example—as raw materials to make its ecoWalls, everybody wins.

Mr Tan said: “The environment is better off; other companies save costs because they don’t have to dispose of these by-products that they generate; Greencast saves costs, and these cost savings are passed on to our customers.”

The company wants to expand overseas. It will enter the Malaysian market next year; it has so far forged a partnership with a distributor and secured factory space there, and is about to secure a contract to supply the contractors who are building a Malaysian township.

Beyond Malaysia, the company is open to talks with potential joint-venture partners to expand into markets such as India and China.

It targets a $10 million turnover for the 2013 financial year. To this end, the company will double its investment in machinery and training. This entails buying bigger machines and sending workers for training.