

RECYCLING

Recycled Aggregates are Key to the Future of Concrete Manufacturing

The recycling of raw materials is beginning to play an increasingly-important role in the manufacture of concrete products, and Cape Brick is leading this revolutionary new process in South Africa.



Cape Brick has developed a reputation of being at the forefront of manufacturing top-quality concrete products from predominantly recycled crushed aggregates (RCA), using equipment supplied by Pan Mixers South Africa (PMSA) - the leading supplier of concrete equipment, solutions and technology in Africa.

Cape Brick managing director Anthony Gracie points out that the company's range of concrete bricks and blocks contain an average of 70 per cent recycled materials, while the company's wet cast products contain 20 per cent recycled materials - which are mainly sourced from demolition and scrap concrete. "Approximately 70 000 tonnes of recycled material is used by Cape Brick annually to create its masonry products. This equates to around 10 per cent of Cape Town's total recycled building waste materials, placing the company at the forefront of recycling in the Western Cape manufacturing industry," he explains.

Gracie notes that Cape Brick's RCA-based concrete bricks and blocks are manufactured using a PMSA VB4X brick and block machine and a P1000 pan mixer. He points out that the product's embodied energy - a calculated total of all forms of energy used during the entire product lifecycle - is approximately half that of a standard concrete brick, and around 1/6th of a standard clay brick. "The use of RCA in the manufacture of concrete masonry

products eases the pressure on landfill sites, as less virgin materials - such as sand and stone - have to be quarried. This also reduces the mining impact on the environment."

Despite the fact that recycled materials are used in Cape Brick's manufacturing process, Gracie stresses that quality is never compromised by the company. "All of our concrete bricks and blocks conform to SANS 1215 standards, while our wet cast paving products comply with the abrasion standard contained in SANS 1058. What's more, the quality of the RCA is superior to that of the quarried materials available at a similar price, which results in products that have less environmental-impact, and greater value-for-money," he continues. "Due to our ability to recycle our own waste, Cape Brick aims for a zero per cent reject rate; thereby, ensuring that only the best quality products reach the customer."

Gracie highlights the fact that the reliability of the equipment and after-sales support provided by PMSA plays a major role in ensuring that Cape Brick is able to maintain its high standards of quality on a consistent basis. "PMSA has a proven track record of being a reliable equipment supplier to Cape Brick for more than 15 years, and the company provides us with the peace-of-mind that we are always guaranteed access to excellent technical support and after-sales service, should we require it."



PMSA sales and marketing manager, Quintin Booysen points out that recycling in the concrete manufacturing process is becoming increasingly important, as businesses and governments become more environmentally-conscious. "As natural resources become increasingly scarce, businesses are beginning to realise that they cannot continue to dump these materials into landfills, for both economic and environmental reasons."

Booyesen believes that Africa has lagged behind the rest of the world with regards to recycling, due to the initially-high cost of investments involved. "In Africa, far too many materials are left discarded in landfills and rivers, due to the fact that a large amount of capital is required in order to create effective and sustainable recycling processes."

He does; however, note that this challenge can be overcome through strategic partnerships. "There is a desire and a will to recycle in Africa, and it is up to local businesses to take the initiative and increase investment in this potentially profitable and sustainable venture, by creating mutually-beneficial partnerships." Booyesen points out that it is vitally-important that the entire process is covered holistically – with crushing specialists, concrete manufacturers and logistic companies all getting involved in the venture. "By combining their collective expertise in their relevant fields, the respective partners can contribute towards an effective recycling process by minimising overall costs while maximising productivity. PMSA is committed to providing the most effective and reliable concrete solutions, equipment and technology to these types of projects, in order to play its part in ensuring the long-term future success for this industry," he concludes.

PMSA Contact

Quintin Booysen
PMSA Sales and Marketing Manager
Phone: 086 100 7672
Email: quintin@panmixers.co.za
Web: www.pmsa.com

