

THE ARCHITECTORAL WORLD HAS A PIVOTAL ROLE TO PLAY IN SUSTAINABLE DESIGN

The South African construction industry is acknowledging its environmental responsibilities by increasingly embracing green construction methods. This trend also recognises that soon sustainable design will be considered a non-negotiable industry requirement. A great deal of time and investment has already been channelled into exploring ways to improve the full spectrum of building processes in order to make a meaningful contribution towards sustainable development in the region.

However, this kind of change begins in the design phase where sustainable or green design methods ensure that a structure complies with the principles of social, economic and ecological sustainability. It is widely accepted that the architectural world has a pivotal role to play in implementing a level of sustainable design that considers all aspects of a project, from design to the ultimate occupation of the building. The objective is to ensure that the building continues to be environmentally friendly throughout its lifetime.

This can be achieved by innovative design in such as areas as energy efficiency, reduced water use, water conservation, reduced waste, re-use after service life, lower waste emissions and less use of natural resources.

Although the principle of green design in domestic dwelling construction is still in its infancy in South Africa, there has been a noticeable shift towards green construction in the corporate and commercial world. The government has also started enforcing several green principles into law and, with time, this trend is set to continue in line with global trends.

As local consumers become more aware of these trends and desire to mitigate damage to the environment, the demand for sustainable design will also grow. Local architectural researchers, academics and professionals are being presented with an opportunity to help the country realise the long term socio-economic and environmental benefits associated with sustainable construction. As they invest in this opportunity, these professionals will pioneer the green movement at the design stage, including specifying materials that are environmentally-compliant for use throughout the project.

With energy-efficient and environmentally responsible “green” buildings becoming the way forward for local construction, advanced composite cements are expected to play an increasingly pivotal role in ensuring that the property industry meets the requirements for green buildings.

The introduction of sustainable building materials is one of the core drivers influencing the direction of AfriSam’s intensive research and development programme. Central to the company’s ethos is sustainability and this reinforces two of its core values — product performance and environmental responsibility. Making use of innovative technologies has enabled the company to reduce its carbon dioxide content per ton of cement produced by more than 34% over the last twenty years. In addition, AfriSam was the first in the industry to measure and publish the carbon footprint of all its products and develop a range of products with the lowest carbon footprint in the market.

One of the most successful outcomes of AfriSam’s R&D programme has been the development and production of a range of advanced composite cements that supports the company’s focus on product performance and environmental responsibility.

AfriSam is committed to advancing the influence of the local architectural community on the sustainability of the construction industry. To this end the prestigious AfriSam-SAIA Award for Sustainable Architecture were first introduced in 2009 as a vehicle to recognise and promote projects in the South African architectural arena that are ecologically sustainable and which also uplift the community. Entries for the 2014 awards close in early March.