

Another environmental first for AfriSam

AfriSam has extended its CO₂ measurement to all of its ready-mixed concrete and aggregate operations. This follows on the industry-first CO₂ rating system, implemented by AfriSam, which indicates the carbon footprint of each of its cement products relative to the world average.

"We believe that it was not only a natural progression from measuring CO₂ in cement, but it was a moral obligation too. We do not consider ourselves exclusive owners of the methodology, and are presenting the model to aggregate and sand producers and other industry bodies,

CARBON FOOTPRINT



such as the Institute for Quarrying and the Southern African Readymix Association, encouraging them to come on board. Our consultants are currently developing a simple and cost-effective program suitable for smaller competitors," explains Alan Cluett, AfriSam's environmental manager.

Nor is the company sitting on its laurels. "We are constantly improving and refining the system, including other aspects such as the amount of CO₂ absorption in different biomes in areas that are disturbed by our operations and subsequently rehabilitated. These, and other considerations, will enable us to ensure the lowest CO₂ footprint possible."

Consultants were commissioned to develop the methodology to calculate the CO₂ emissions and reports are now being returned from all AfriSam's aggregate and readymix operations. "Not only is diesel considered, but all greenhouse gas equivalents," Cluett points out. "This includes gasses generated by explosives, sewage, water pumping and from electricity – even welding gas and gasses used for cooking on site. All costs associated with transporting products are also factored in."

AfriSam was the first cement manufacturer in South Africa to measure its carbon footprint and is now arguably the first in the world to provide this measurement across all its activities.

"AfriSam has had an 'environment conscience' since well before the 1990s," explains Cluett. "We started measuring our CO₂ emissions in 1990 and that led to our developing our blended Green Cement products to reduce our carbon footprint. It was quite a risk, but customers bought into the vision and supported us."

AfriSam's Green Cement programme hinged on using waste products from other industries, such as fly ash, slag, limestone and even silica fume, instead of clinker. "The result was that we reduced the specific CO₂ per ton of cement by 37% between 1990 and 2008 – 16% below industry average," Cluett continues. "The world industrial average for a tonne of cement is 890 kg of CO₂. AfriSam's All Purpose and High Strength cements are substantially below that," he says.

"The CO₂ rating system introduced for all our cement products in 1999 indicates the carbon footprint of each relative to the world average calculated by the World Business Council for Sustainable Development. This is printed on every bag so that consumers can make informed and responsible decisions on the products they purchase." ■



AfriSam's Juskel Quarry.



One of the company's readymix vehicles.



An AfriSam aggregate operation.

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