

# The first CO<sub>2</sub> rated cement introduced to market

**A**friSam has announced the introduction of a carbon footprint (CO<sub>2</sub>) rating stamp which will appear on every bag of cement that it sells. AfriSam has developed a relative CO<sub>2</sub> footprint system which calculates the CO<sub>2</sub> associated with the production of every kilogramme of cement of each main AfriSam cement type from its various production facilities.

This initiative is based on the Cement CO<sub>2</sub> Protocol which is closely aligned to the overarching Greenhouse Gas Protocol developed under a joint venture of the World Resources Institute and World Business Council for Sustainable Development. Currently, the world average emission of CO<sub>2</sub> per kg of cement is 890 g as per Cembureau.

The model not only takes specific types of direct and indirect emissions into account, but also weighs up the effects of interplant transportation. Emission calculations and summations are based on a "cradle to gate" approach, where the "gate" is the factory gate.

In the cement manufacturing process, roughly 60% of the emitted CO<sub>2</sub> is from the production process (the decarbonation of limestone) and 40% from fuels. Interplant transportation emissions come into play where cement is processed at more than one facility. "Although cement remains one of the top three commodities consumed in the world, we are well aware of

the impact cement production has on the environment. We have made the reduction of carbon emissions a priority for AfriSam for more than a decade and will continue to strive to improve our efficiencies and lower our emissions by 2% every year," says Stephan Olivier, chief operating officer, AfriSam Cement Operations.



*Chief operating officer of AfriSam Cement Operations, Stephan Olivier*

The actual value of CO<sub>2</sub> associated with manufacturing and transporting each individual product will soon be printed on all AfriSam cement bags, and this will be clearly visible to the end-user. The bag will carry a CO<sub>2</sub> barometer insignia showing emissions in comparison to the world average of 890 g/kg. Characteristics of low CO<sub>2</sub> cement could include low fuel consumption, high mineral component extension (fly ash and GGBS or a combination thereof within SABS standard requirements) and low clinker content.

"We see the reduction of CO<sub>2</sub> as an urgent responsibility for industry in general. We believe that this initiative is a first in the world for the cement industry and encourage other producers to follow suit," says AfriSam's marketing manager, Victor Bouguenon. ■