

GREEN BUILDING & ENERGY EFFICIENCY

The sky's the limit for AfriSam's 'green' cement

The stars were still out in the night sky for the five thirty am launch of AfriSam's new Eco Building Cement. The event produced more than just hot air. AfriSam chose ballooning as an ideal way to launch its new eco-friendly green building cement, by leaving a low carbon footprint.

Rising with the sparrows and ballooning was a different way to start the day. Bussed to a nearby field to take-off in two hot air balloons, fellow journalists wiped the sleep from their eyes, while AfriSam's CEO, Stephen Olivier offered some light relief for those nervous first time balloonists. Joking about the plane which was about to crash with the Dali Lama, George Bush, the pilot and a student, four people but only three parachutes, it was an uphappy ending for George.

Olivier says that the building, construction and retail industry has widely welcomed AfriSam's new environmentally-responsible Eco Building Cement, which has a carbon footprint half that of the world average for cement.

The cement is a blend of high performance cement and mineral components, making it extremely durable. It is designed to provide a smooth, defect-free finish for concrete, masonry and plaster work. The concrete it produces is less permeable, offering greater resistance to the penetration of harmful substances. It can be used in aggressive conditions and has a high resistance to chloride ingress, reducing the risk of reinforcement corrosion as well as a high resistance to attacks by sulphates and other chemicals, thus preventing the early failure of concrete. It eliminates the risk of Alkali-Silica Reaction (ASR), and is ideal for soil stabilisation applications.

When prepared with sand, stone and water in typical plaster, mortar or concrete mixes, the carbon footprint of the mix is reduced to between 79 g/kg and 180 g/kg. "The overall carbon footprint of this cement stands at 453 g/kg, almost half that of the world average of 890 g/kg according to Cembureau and the World Business Council

for Sustainable Development," says Mike McDonald, AfriSam's Product Technical Manager. "We have achieved this without compromising on the quality required by SABS for cement in this strength class."

McDonald added tests indicate 2-day, 7-day and 28-day strengths of 10 MPa, 20 MPa and 40 MPa respectively, with excellent long term strengths due to the reactive mineral components in the product. The product compares favourably with others in the 32.5 MPa strength class and outperforms many competitive products in this class in terms of workability, durability and long-term strength.

This CEM III A 32.5N Blast Furnace Cement complies fully with SANS 50197 specifications. It is available in practical and convenient 20 kg bags for ease of handling, reduced wastage and in-store convenience as well as in the traditional 50 kg bags for the building industry. It performs excellently for general purpose building, bricklaying and plastering. Its improved cohesion in concrete makes for improved placing and compacting. The product is available in the greater Gauteng area and is easily distinguishable in its bright green packaging.

"We are conscious of the fact that South Africa is one of the world's largest and fastest growing carbon emitters, ranking in the top 10 per capita of CO₂ emitters globally. We have invested significantly in research to develop and implement a CO₂ measurement system on all our cement products. We now assess the on-going carbon footprint of every one of our 40 ready-mix operations, 16 aggregate plants and each cement product from every plant. This, we believe, is a world first in the industry. The production of Eco Building Cement complements this drive."

