



ROCK SOLID

Concrete reinforcement

Pan Mixers South Africa (PMSA) has launched what is claimed to be a superior concrete reinforcing product, made from crushed and melted basalt rock.



StoneRod, made from basalt rock.

PMSA marketing and sales manager Quintin Booyesen says, "StoneRod is a revolutionary basalt fibre material that serves as a cost-effective alternative to industry-standard steel and E-glass concrete reinforcement for numerous industrial applications, and perfectly complements PMSA's existing range of concrete-related products and technology."

Basalt Technology director Gordon Forrester explains that the basalt rock is transformed into fibres by taking the rock in its purest form and melting it, before drawing it through dies. The material can then be spun to produce a twisted yarn, or can be wound as a single-filament material.

"Once the StoneRod fibres are formed, they

are processed to create numerous different products. StoneRod has similar chemical properties to glass fibre, and may be used in all the applications traditionally produced in glass fibre."

StoneRod fibre has a tensile strength of 4 840 MPa, compared to the 3 250 MPa tensile strength of E-glass. "In addition to being almost 50% stronger than glass fibre, StoneRod is also impervious to water and heat," he continues.

StoneRod fibres can be manufactured into concrete rebar using a pultrusion process, and this rebar is corrosion-proof, in addition to being 87% lighter than steel, and has a tensile strength of 1 200 MPa.

Forrester points out that StoneRod can be used by the building, construction and civil engineering industries for numerous applications, including concrete rebar, concrete floor reinforcement, fence droppers, Shotcrete and asphalt reinforcing for roads.

"As more industries test the product and experience the advantages of it first hand, I have full confidence that the demand for StoneRod will increase substantially in the years to come." ■

Groundbreaking basalt fibre technology for reinforcing concrete has been introduced to the local market by Basalt Technology, which forms part of the PMSA group of companies and was established in January 2012 to promote the benefits of the company's new concrete reinforcing product,