

Quality

Part of our fly ash package

As pioneers of Fly Ash in the South African construction materials industry we offer more than a cement extender. Our commitment to our customers ensures a whole package of benefits: consistent high quality that is recognised internationally, tender winning cost effectiveness and all-round service back-up.

Quality flows from our ISO 9001 listed plants at Lethabo and Matla, and is endorsed by our product's compliance with SABS 1491 Part 1. Our quality control and technical service is backed by one of the finest construction materials laboratories in the country. With the company's twenty years of product development work and investment in ongoing research, our technical staff are equipped to provide quality solutions to the challenges facing today's industry.

Quality has no distance limitations when only the best extender is good enough. Our fly ash has been used on many world class projects such as the Katse Dam, Saldanha Steel, Mozal aluminium smelter, the Burj Dubai Project, "The Tallest Building in the World" and The Financial Harbour Project, Kingdom of Bahrain.

Dura-Pozz® from Ash Resources - the top quality package.



AshResources

Fly ash products

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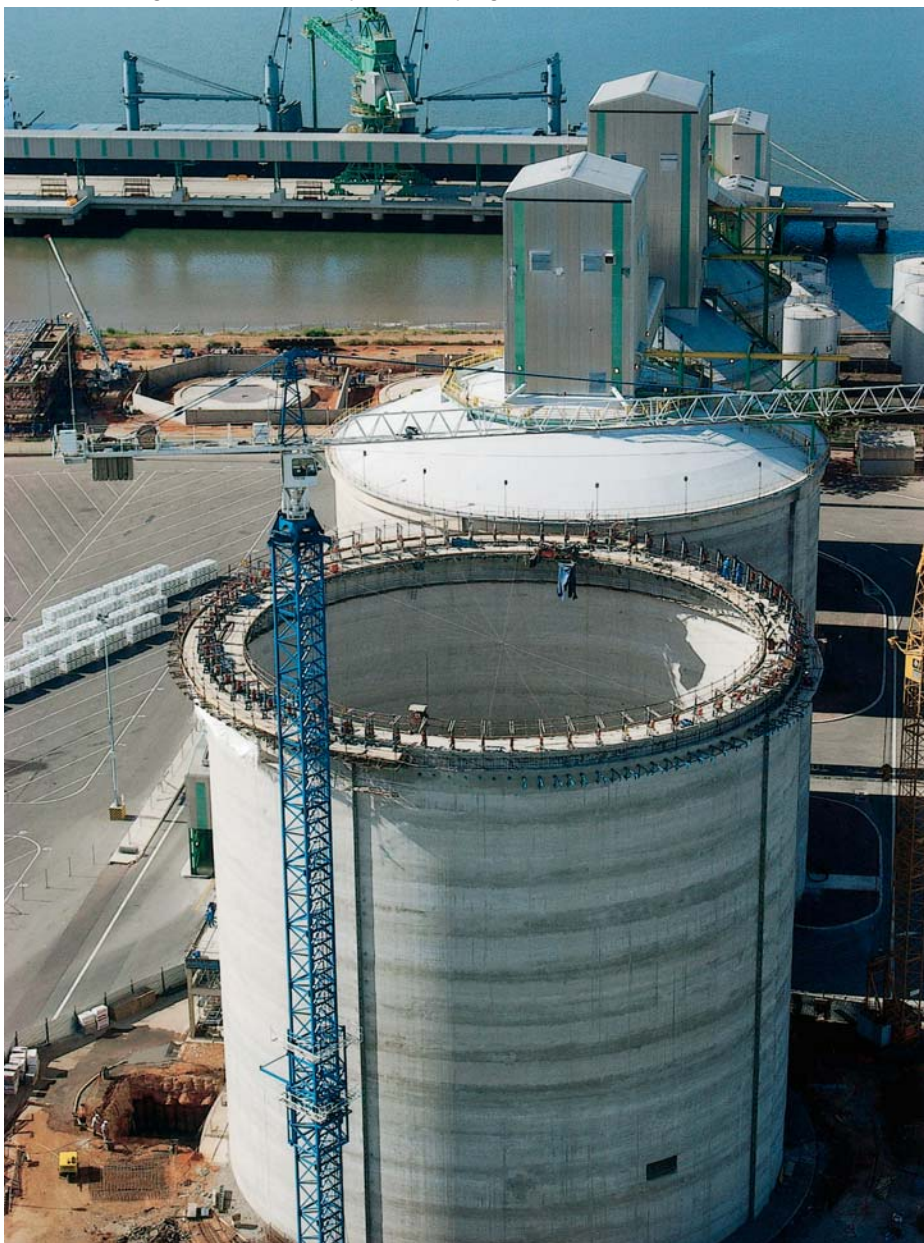
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The Quality Benefits of Dura-Pozz®

Construction of the first phase of the Mozal aluminium smelter in Mozambique included a new raw material import jetty at Matola and a materials yard that featured three large concrete storage silos. The second phase added a fourth silo. Some of the largest silos in Africa, two 30 000ton silos store imported coke and two 45 000ton capacity silos store the primary raw material, alumina powder.

The site of the materials yard, being on the Mozambican coast, was in an aggressive marine environment and the silos are subjected to the continual movement of abrasive products. To ensure joint-free walls, the silos were constructed using a specialised continuous sliding technique.

Bottom, left & right: Concrete slide operation in progress on the second 45 000ton alumina silo



Mozal's raw material silos at the Matola Port

The concrete design was based on a 75/25 CEM 1/Dura-Pozz® mix to give long-term durability and provide a workable, plastic concrete mix for the sliding operation. Dura-Pozz®, supplied exclusively by Ash Resources, complies with SABS 1491: Part 2 together with the chemical composition and physical requirements of ASTM C618, BS 3892, EN450 and other recognised international quality standards for fly ash. The incorporation of Dura-Pozz® was also recommended to overcome any problems with the available aggregates in Mozambique which were marginally. The Sliding operation used shutters mounted on hydraulic jacks that were capable of

sliding the shutters all the way to the top of the silos in 3m lifts. To achieve the required quality of finish for the silo walls, it was imperative that the sliding operation was a nonstop, 24 hours-a-day continuous concrete pour. This in turn placed stringent demands on the consistent quality of the concrete mix and its uninterrupted supply. Dura-Pozz® was successfully delivered by road on a round trip of 1 100km from Ash Resources' plant at Matla in Mpumalanga, South Africa. The mix exhibited consistent strength results and the Dura-Pozz® also helped to retain the workability in the local hot climatic conditions. In addition, the mix had a reduced water requirement which contributed to an overall improvement in concrete strength and durability. alkali reactive.

Below: On-site batch plant using OPC and Dura-Pozz®

