



Burj Al Arab

Dubai, UAE

Client

The Ruler's Office

Contractor

Al Habtoor-Fletcher, Murray & Roberts JV

Sector

Hotel / Entertainment

DATE

2001

PRODUCTS

- Conplast SP 430/432MS
- Conbextra EP300
- Proofex GP
- Nitoflor Curaseal
- Nitoseal FC100
- Nitocote EP405

THE PROJECT

Designed to resemble a billowing sail, one of the most fascinating and majestic structures in the world, the Burj Al Arab soars to a height of 321m, dominating the Dubai coastline. This all-suite hotel stands on an artificial island 280m (920 ft.) out from Jumeriah beach and is connected to the mainland by a private curving bridge.

Fosroc had been awarded the contract of providing a waterproofing solution that meets some of the unique construction challenges in this key project.

THE SOLUTION

Working hand in hand with the project contractors and consultants, Fosroc identified the best product combinations that would provide optimal performance in an environment that was man made and surrounded by water.

Amongst a myriad of construction challenges, careful consideration needed to be given in the selection of concrete admixtures and products to provide comprehensive solutions in key areas such as waterproofing and pile heads.

More than 100,000 m3 of concrete has been placed on the site via a vertical static line pump up to 220m high, with a further 30m line being used horizontally on each floor- only the final 2 meters of the 250 meters line was flexible.

Conplast SP 432MS and Conplast SP430 were the super plasticiser admixtures which met the specification for the concrete and eventually 300,000 liters of Conplast SP432MS and 100,000 liters of Conplast SP432MS were utilised. The waterproofing membrane system consisted of two layers of Proofex GPX, 1.6mm self-adhesive membrane supplied by Fosroc, and Proofex Protection Board, 3.2mm thick bitumen impregnated hard board. The waterproofing was applied as a positive tanking on to the structural wall and below the concrete raft.

THE BENEFITS

The Burj Al Arab is one of the most important landmarks in Dubai and in the UAE. Considering the harsh climate conditions and the standards set for achieving high quality concrete, the admixtures used not only met the customer's expectations but exceeded them.

As well as meeting strength requirements they provided a total solution on permeability and water absorption requirements resulting in expanding life expectancy to the structure

