

Jeddah Islamic Port

Saudi Arabia

CUSTOMER

Saudi Ports Authority

SECTOR

Marine

DATE

2010

PRODUCTS

- Conbextra UW & HF
- Conplast SP470
- Galvashield CC100
- Nitomortar TC2000
- Nitocote EPU
- Nitoseal MS600

THE PROJECT

Since its construction in 1976 Jeddah Islamic Port has become the busiest port in Saudi Arabia. Corrosion caused by the chlorides in the marine environment was affecting the steel reinforcement. A comprehensive repair system was required to repair the damaged concrete and ensure that the corrosion issues would not return. Marine repairs present a challenge, being undertaken at or below the tidal zone. Completed repairs are subject to heavy mechanical impacts caused by the shipping and goods handling process.

THE SOLUTION

Fosroc provided a complete and comprehensive solution to the repair process. More than 16,000 units of Galvashield CC were used to manage the corrosion of the reinforcement. High strength grouts and mortars combined with adhesive and anti-corrosive primers were used to repair above and below the water line. Fine cracks were filled using epoxy mortar Nitomortar TC2000.

Recasting areas of concrete was undertaken using Conplast SP470 superplasticiser. The Jetties were then coated with Nitocote EPU, a protective Epoxy Polyurethane coating providing flexible protection from chloride ingress, UV and bacterial growth. Joints were sealed with Nitoseal MS600

THE BENEFITS

The comprehensive system of repair and corrosion protection will provide the port with repairs that have a design life of 15 years. An embedded corrosion prevention system will be far less susceptible to mechanical damage in use. The integrated system ensured that all materials selected are compatible.

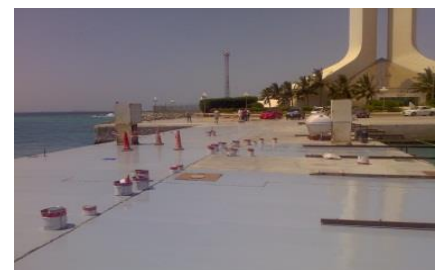
Importantly for the client and the contractor, the project was commissioned with no lost berthing time during implementation. The quality and durability of the material selected will ensure the next repair cycle will not be for many years.



Installation of Galvashield



Recasting along the waterline



Protection completed with Nitocote EPU