

Military Buildings

Saudi Arabia



Country: Saudi Arabia
Timescale: July—August 2010
Structure: Military Buildings, Al Khobar
Client: Saudi Government
CPT Treatment used:
DuoGuard™ Hybrid Anode System



These residential buildings were constructed in Saudi Arabia for military personnel. The below ground water-proofing system has deteriorated and allowed moisture ingress.

Problem

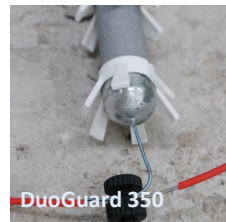
The sabkha groundwater level is high in the sandy ground conditions in Saudi and in addition the salt levels of the groundwater are high. Over time the salt water permeated by capillary action into the concrete walls with the result that steel reinforcement corrosion occurred and concrete spalling was visible.

Solution Developed

As chloride contamination was evident throughout the concrete walls, the client required that the whole area was protected from further corrosion damage. DuoGuard anodes were installed into all walls on a grid pattern.

Benefits

DuoGuard anodes were installed into all walls on a grid pattern. DuoGuard anodes were incorporated into both existing and repaired concrete as chloride contamination was widespread and long term protection was required.



CPT Products Used:

- ◆ DuoGuard™ 350
- ◆ DuoCrete SD Mortar
- ◆ Mn15 Ref. electrodes

For technical and sales support please contact us at;
Concrete Preservation Technologies Ltd,
Unit 1, Palmer Business Court
Manor House Road
Long Eaton, Nottingham
United Kingdom NG10 1LR

t: +44 (0)115 9724 238
f: +44 (0)115 9220 316
www.cp-tech.co.uk



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