

Project Profile - Coastal Structures

PROJECT

Royal Sovereign Lighthouse, English Channel

SUMMARY

Defective concrete at the top of the tower left steel elements exposed in an aggressive saline environment.

PRODUCTS

Steel Reinforcement Protector 841
Monomix

CLIENT

General Lighthouse Authority,
The Corporation of Trinity House

CONTRACTOR

URS Scott Wilson

BACKGROUND ►

Royal Sovereign Lighthouse was built in 1971. Situated seven miles to the south of Eastbourne in the English Channel, it is a unique and instantly recognisable structure complete with its own helipad.

The design is complex, as the reinforced concrete elements rely on a post-tensioned system. A full structural survey undertaken in 2008 confirmed subsurface corrosion. By 2010, major structural works were essential if the integrity of the lighthouse, now entering its fifth decade in one of the most aggressive of environments, was to be maintained.

THE SOLUTION ►

Having identified the potential for seawater to penetrate through to the post-tensioned tendons to initiate failure that would not be easy to predict, the EN 1504 Part 7 certified **Steel Reinforcement Protector 841** was specified in combination with **Monomix** to complete the repairs. **Monomix** is a single component, high build polymer modified mortar which is certified to EN 1504 Part 3. It produces a structural grade, non-shrinking repair which is totally waterproof under 10 bar pressure, equal to 100 metres of water.



FM 41091
EMS 597350
OHS 597351

Quality
Environmental
Health & Safety

Flexcrete Technologies Limited
Tomlinson Road • Leyland
Lancashire • United Kingdom
PR25 2DY

Tel: +44 (0) 845 260 7005 • **Fax:** +44 (0) 845 260 7006
Email: web@flexcrete.com • **Web:** www.flexcrete.com

