

PROJECT

Lynemouth Power Station, Northumberland

SUMMARY

Anti-corrosion protection of steel piling totalling 1,500m²

PRODUCTS

Cemprotec Clutch Filler, Cemprotec E942, Cemprotec Edge Scrim

CLIENT

Sir Robert McAlpine

CONTRACTOR

CSC Services UK Ltd

BACKGROUND ▶

Originally constructed in 1972 to generate electricity from coal, Lynemouth Power Station is currently under conversion to a biomass-fuelled power plant. The Power Station is being converted from coal burn generation to biomass in order to supply the National Grid with up to 390 megawatts of low carbon electricity, supplying enough power for almost half a million residential homes. The biomass conversion will save 1.5 tonnes of carbon dioxide in comparison to coal.

Sir Robert McAlpine is constructing the Materials Handling Facility at the power plant and an anti-corrosion coating was needed for the sheet piling in the new rail offload areas. Flexcrete's Cemprotec E942 cementitious coating was specified due to its enhanced chemical and abrasion resistance which will ensure that the 20 year design life of the steelwork will be achieved.

THE SOLUTION ▶

CSC Services UK Ltd, a specialist repair and coatings contractor to the power and water industries, was appointed to carry out the application work. The interlocks between the sheet piles and any voids were first filled with Cemprotec Clutch Filler, a uniquely formulated cementitious material for sealing the surface gaps between piles prior to the application of a Flexcrete cementitious anti-corrosion coating.

A 1mm stripe coat of Cemprotec E942 was then applied over welds, flanges, cut edges, plates and all fixings including nuts and bolt heads. Cemprotec E942 is a high performance, waterborne, epoxy and cementitious modified polymer coating which provides innovative stand-alone, anti-corrosion protection. It can be applied to damp substrates and achieves bond when just surface rusting has been removed. By comparison, alternative products require removal of all surface contaminants and corrosion by-products back to bright metal. With a water-based composition, it releases no strong odour or hazardous solvents during application and is non-toxic, so it can be applied in enclosed locations. Cemprotec Edge Scrim was embedded on all welds and cut edges before a 1mm coat was Cemprotec E942 was spray applied to the complete surface area of the sheet piles. Just 30-60 minutes later a second 1mm coat was applied to provide excellent anti-corrosion protection. Cemprotec E942 is CE-marked in compliance with the demands of BS EN 1504.





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