



PROJECT PROFILE

PROJECT

Eastbourne Wastewater Treatment Works, East Sussex

SUMMARY

Refurbishment of an underground inlet chamber

PRODUCTS

Monomix HD, Cemprotec E942

CLIENT

CMDP (Joint venture between Costain and MWH) on behalf of asset owner Southern Water

CONTRACTOR

Concrete Repairs Limited (CRL)

BACKGROUND ▶

Dating back to 1997, Eastbourne Wastewater Treatment Works is located on the seafront at Langney Point in East Sussex. Serving a population of circa 140,000 people across the Eastbourne area, the vast majority of the works is located underground, beneath a fortress-style building. Up to 74 million litres of wastewater is pumped in and treated every day almost entirely out of sight.

The concrete repair work was carried out beneath ground level in extremely arduous conditions. The project involved the refurbishment of the underground inlet channel that receives wastewater flows, as the concrete had deteriorated due to attack from hydrogen sulphide (H₂S) gas and sulphuric acid. The refurbishment project was carried out at night when flows were low.

THE SOLUTION ▶

As part of a major £16 million upgrade of Eastbourne Wastewater Treatment Works, Flexcrete concrete repair materials were specified. Almost 140 tonnes of **Monomix HD** was applied over a six month period by specialist asset maintenance contractor, Concrete Repairs Limited (CRL). A Flexcrete system was devised for the project comprising a dry spray application of **Monomix HD** repair mortar followed by a final coat of **Cemprotec E942**. The system minimises environmental impact due to the fact that both products are water-based, ultra-low odour and solvent-free, making them safe to apply even whilst facilities are in operation.

Hydro demolition methods were used before the dry spray application of **Monomix HD** - a high strength, waterproof, class R4 mortar which exhibits extremely low rebound when applied either by dry or wet spray techniques for the structural repair, rendering and profiling of vertical, overhead and horizontal surfaces. With excellent resistance to abrasion, **Monomix HD** is a single component cementitious repair mortar requiring only the addition of clean water.

Following the application of **Monomix HD**, **Cemprotec E942** - a high performance, two component, water based cementitious coating - was applied. This combined Flexcrete **Monomix HD/Cemprotec E942** system was chosen on the basis of the rapid curing properties and speed of reinstatement between application of the mortar and coating as there is no need for a skim coat due to the high quality finish of the mortar.



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

