

Project:
Sewage Treatment Works

Location:
London

Owner:
Thames Water

Applicator/Contractor:
Volker Laser

Market sector:
Wastewater Industry

Products used:
MasterEmaco N 5200
MasterSeal M 689
Ucrete PSC

Sales Contact:
Darren.pridde@mbcc-group.com

Technical Contact:
christopher.gallivan@mbcc-group.com

Sewage Treatment Works, London

Refurbishment of six primary settlement tanks



Our reference in London (United Kingdom): Sewage Treatment Works

The background

This sewage treatment works serve a combined total of 5.5 million Londoners. A major investment program will significantly increase the amount of sewage each site can treat and as such, measures to reduce and control odours to the surrounding area have been implemented. This involved the encapsulation of each settlement tank with a “bio dome” to reduce odours to the surrounding area and harvest the methane produced.

The challenge

The program of work involved the repair of the concrete surface and the installation of a new link bridge within each tank. The effect of encapsulating the tanks increased the microbiological activity and subsequent acidity within the atmosphere. A suitable coating was required to protect the concrete from the new environmental conditions.

Head Office:
Master Builders Solutions UK Ltd
Swinton Hall Road
Swinton Manchester
M27 4EU, United Kingdom

T: +44 (0)161 727 6300

Redditch Office:
Master Builders Solutions UK Ltd
19 Broad Ground Road, Lakeside,
Redditch, Worcestershire,
B98 8YP, United Kingdom

T +44 (0)1527 512 255

Crossness and Beckton Sewage Treatment Works

Refurbishment of six primary settlement tanks



Our reference in London (United Kingdom): Sewage Treatment Works

Our solution

MasterEmaco N 5200, was used to repair and reprofile the vertical concrete surface and create a smooth horizontal top surface; with an internal fall, onto which the “bio dome” is secured. The internal falls prevent the ponding of acidic solutions within the encapsulated tank.

The internal surface of the tanks were primed with Ucrete PSC, a moisture tolerant primer. After 24 hours the internal concrete surface was sprayed with MasterSeal M 689, rapid setting, chemically resistant polyurea coating to a thickness of 1.5 mm in one coat. The coating was applied over the horizontal surface and 2.5 meters down the vertical surface. The bottom 1 meter of MasterSeal M 689 coating would be permanently submerged below the minimum fill level when in service.

The customer’s benefit

MasterEmaco N 5200 rapid-setting mortar enabled the reprofiled surface to be sufficiently cured within 7 days to receive the coating.

MasterSeal M 689 provided a chemically resistant, durable and flexible coating to withstand the acidic atmosphere within the “bio domes”

Projects facts at a glance

- Concrete repair and coating of 6 primary settlement tanks
- Approximately 2,000 m² of concrete surface waterproofed
- MasterEmaco N 5200 – 1 tonne
MasterSeal M 689 – 7.5 tonnes

Master Builders Solutions by MBCC Group

The Master Builders Solutions brand expresses MBCC Group’s expertise in providing customized chemical solutions for new construction, maintenance, repair and restoration of structures.

Master Builders Solutions is built on the experience gained from more than a century in the construction industry. At the core of the Master Builders Solutions brand is the combined know-how and experience of a global community of construction experts, who connect with you to solve all of your construction challenges.

Further information is available at:
www.master-builders-solutions.com