

## Veolia EfW, Southwark

Simple Acoustic Solutions



**Project:** Southwark

**Client:** Veolia Environmental Services

**Project Type:** Integrated Waste Management Facility

**Project Size:** Roof 27,182.68m<sup>2</sup>  
Wall 30,752.51m<sup>2</sup>

**Project Architects:** Thorpe Wheatley/  
Royal Haskoning

**Main Contractor:** Volker Fitzpatrick

**Cladding Contractor:** FK Roofing

**Material:** River-Therm<sup>®</sup> Secret Fix  
Roof in Colorcoat HPS200 Ultra<sup>®</sup> in  
Goosewing Grey

Twin-Therm<sup>®</sup> walls in CA32/1000R  
Colorcoat HPS200 Ultra<sup>®</sup> in Albatross  
and Arc 50 930 in Colorcoat Prisma<sup>®</sup> in  
Pegasus

**CA Group, one of the UK's largest metal roofing and cladding system manufacturer and installers has announced that work on the Southwark Integrated Waste Management Facility is now complete, putting the London Borough on the right path to increasing its recycling rate from 21% to 30% by 2021.**

The announcement comes on the back of a number of projects which the cladding specialist has supplied in recent months, including a £40 million Biomass Plant, in County Durham, which is set to burn 120,000 tonnes of waste wood a year, a 400,000 tonne Anaerobic Digestion Plant (ADP) at Poplars Landfill site in Cannock, and a 200,000 tonne Mechanical Biological Treatment facility (MBT), in Avonmouth.

According to Brian Watson, Group Development Director at CA Group, many factors need to be considered when approaching waste management. The potential for the technology is huge but, understandably, there are certain restrictions that need to be considered in order for the project to be a success, not just for the management team operating the plant but also for the local community.

The Planning process for Energy from Waste (EfW) projects is stringent, especially in relation to any emissions that may result from the process, including noise. The waste emissions are effectively controlled by the waste management contractor. Noise as an emission, on the other hand, is a design issue and its effective management is very much dependent on a thorough understanding of acoustics - one of

the most critical issues in the building's design and specification. Acoustics management requires input from a specialist team who rely on tested systems that will meet the performance demanded by the building, preventing the escape of noise from inside to outside or even out to in. Noise management is vital to ensure that no disruption or disturbance is imposed on the local neighbourhood. CA Building Products roof and wall systems are delivered as built up site assembled constructions which incorporate lightweight manmade mineral fibre (MMMF) insulation encapsulated within two skins of steel. The steel profiles provide mass to the system whilst the MMMF insulation minimises the noise vibration. Comprehensive testing has proved that this assembly provides the best overall performance.

Enhancement of the system, to meet project specific requirements, is simple; changing internal and external sheet thicknesses and/or increasing insulation thickness and density can provide a multitude of performance options to meet the specification. Varying acoustic requirements within the same building can be catered for without affecting the aesthetics of the building envelope.



Watson explained “CA started working on the integrated waste management facility in Southwark at the concept stage with the architectural teams Thorpe Wheatley and Royal Haskoning and the client Veolia. The design once completed was tendered and FK roofing was the successful roofing contractor.”

“The combination of location, close to residential homes, and the fact that the building was due to house noisy machinery meant that very specific acoustic requirements had to be met.”

According to Watson, this was achieved by incorporating CA Group’s River-Therm® roof and Twin-Therm® wall systems which feature Therma-quilt insulation, a soft MMMF insulation which absorbs noise rather than reflecting it.

The Southwark plant will manage 87,000 tonnes of residual waste every year, as a result, in certain areas; the structure will be exposed to a significant amount of chemicals. To ensure the cladding is not compromised in these areas, the internal liner was profiled using Colorcoat HPS200 Ultra® from Tata Steel. The external finish of CA Group’s River-Therm® roof and the Twin-Therm® walls were also manufactured from Colorcoat HPS200 Ultra® which is guaranteed for up to 40 years and has an optimised



Galvalloy® metallic coating for ultimate corrosion resistance and cut edge protection.

The plant will incorporate a Mechanical Biological Treatment (MBT) facility, a materials-recycling facility, a household waste, refuse and recycling centre and an educational visitor centre.

Watson concluded: “This highly specialised area requires careful management. Our expertise in both producing the requisite materials and managing their implementation means we are perfectly positioned to expand this part of our business as demand continues to grow.”

