



# SIKA AT WORK

## DIGESTOR REFURBISHMENT, KIDDERMINSTER, UK

CONCRETE PROTECTION: Sikagard®-7000 CR

BUILDING TRUST



# PROTECTION OF CONCRETE AND OVERBANDING OF INTERNAL JOINTS



## PROJECT DESCRIPTION

Project name: Digester refurbishment  
Location: Kidderminster, United Kingdom

As part of a planned maintenance programme, the existing protective coating and waterproof bandage systems were inspected.

## PROJECT REQUIREMENTS

The internal coating in the gas zone of the digester together with the waterproof bandages were identified to be replaced. The exposed concrete in the gas zone required a flexible protective coating that would be resistant to biogenic sulphuric acid attack.

## SIKA SOLUTIONS

The concrete surface below the gas zone was treated with a high-pressure water to remove the long-term build-up of deposits. The existing coating in the gas zone was mechanically removed and the concrete surface lightly grit blasted to remove all contamination. The concrete surface in the gas zone was primed with 2 coats of Sikagard® P 770 primer followed by 3 coats of Sikagard® M 790 topcoat in grey; applied over consecutive days, by roller. Sikadur® Combiflex® Tape and Sikadur® Combiflex® Adhesive were applied at the termination points of the coating; both at soffit level and below the low water level of the gas zone. The existing bandages on all levels below the water line were replaced with Sikadur® Combiflex® Tape and Sikadur® Combiflex® Adhesive.

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The surface below the gas zone was treated with a diluted solution of SikaLatex® to seal microcracks in the concrete. SikaEmaco® N 5200 was used to repair sections of failed concrete on the external walls of the digester.

## CUSTOMERS BENEFIT

Sikagard® P 770 primer can be applied onto a solid, surface dry but damp; concrete or repair mortar. Sikagard® M 790 will resist biogenic sulphuric acid attack whilst remaining flexible to accommodate future movement or vibration from the transfer of wastewater. Sikadur® Combiflex® Tape and Sikadur® Combiflex® Adhesive can be returned to service in 3 days at  $\geq 14^{\circ}\text{C}$  and 10 days at  $\geq 7^{\circ}\text{C}$  concrete surface temperature. Sikadur® Combiflex® Adhesive is moisture tolerant and can be applied to damp but surface dry concrete substrates. Sikadur® Combiflex® Adhesive is easy to mix and apply even at low ambient temperatures. Sikadur® Combiflex® Adhesive is stocked in 100 mm, 200 mm and 300 mm widths and can be supplied in larger widths upon request.

## PROJECT FACTS AT A GLANCE

- Digester in Kidderminster
- Protecting concrete in the gas zone subject to biogenic sulphuric acid attack
- Xolutec technology
- Moisture tolerant Primer and Topcoat applied; resistant to biogenic sulphuric acid attack
- Waterproofing all internal joints

## PROJECT PARTICIPANTS

Project Owner: Severn Trent  
Applicator/Contractor: GTS