



SIKA AT WORK

BRINKLOW QUARRY, COVENTRY, LEICESTERSHIRE

CONCRETE: SikaFume®-50S, Sikaswell® S-2
SEALING: Sikaflex® TS Plus

BUILDING TRUST



BRINKLOW QUARRY COVENTRY, LEICESTERSHIRE



The Project

The only plant of its kind in Coventry, Brinklow Quarry is a dual-purpose site which provides energy to power its operations and supplies the national grid.

The quarry required a suitably-reinforced concrete slab to site materials used at the facility, capable of withstanding degradation from chemical substances caused from the production of silage*.

The facility has dual-conversion functionalities, CHP (combined heat and power) – an anaerobic digester generating biogas which is burned on site to generate heat, power or both and BtG (Biomethane to Grid) – an anaerobic digester generating and upgrading biogas, to derive biomethane for injection into the national gas grid.

The Requirements

Anaerobic digestion is the process by which organic matter, such as animal or food waste, is broken down to produce biogas and biofertiliser. This process happens in the absence of oxygen in a sealed, oxygen-free tank called an anaerobic digester.

Because silage is acidic, additional measures are required to prevent the material from attacking the concrete on which it sits; a process which happens over time.

The Solution

With a clear requirement for protection against chemical penetration, particularly sulphate and chloride, Sika worked closely with Smiths Concrete to design a suitable mix.

SikaFume®-50 S, a Microsilica admixture for ultra-high-performance concrete, was specified due to its capabilities to dramatically improve strength, durability and impermeability.

The mix was complemented by SikaSwell® S-2 Mastic, used in the slab to wall joints to prevent leachate seeping down between the slab and the precast wall panels and Sikaflex® TS Plus chemical resistant sealant for the slab joints.

The specification provided an optimised concrete mix with the workability and performance characteristics required for such a unique installation.

With three silage clamps to pour, the total material volume requirement was approximately 1,200m³.

* grass or other green fodder compacted and stored in airtight conditions, typically in a silo, without first being dried, and used as animal feed in the winter.

For further information call 0800 292 2572.



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