



## Paignton Zoo Environmental Park

### Sika Watertight Concrete System

**Sika Concrete System:**

Watertight Concrete System,  
SikaSwell® Jointing System

**Client:**

Paignton Zoo Environmental Park

**Architect:**

Kay Elliott Architects

**Engineers:**

Winward Dexter

**Concrete Supplier:**

Hanson Premix

# Paignton Zoo Environmental Park

The crocodiles at Paignton Zoo Environmental Park in Devon have no fear of their pools running dry thanks to the **Sika Watertight Concrete** system. Often associated with keeping water out of structures, in this case the system has been used to keep the water in.

The recently opened £1.5 million Crocodile Swamp is the Zoo's latest main attraction and is home to two Nile crocodiles, one saltwater and three Cuban crocodiles, who all enjoy a home from home tropical environment within the Swamp. The Cuban is one of the world's most endangered crocodiles and one of the Zoo's missions is the conservation of wildlife in a natural looking environment – a challenge successfully taken on by Kay Elliott Architects to give an engaging and imaginative experience to the swamp's visitors.

Structural Engineers Winward Dexter specified **Sika Watertight Concrete** for the five pool enclosures within the swamp – an ideal and cost effective solution in



fulfilling the design brief. Hanson Premix supplied 200 cubic metres of watertight concrete to the project.

A **Sika Viscocrete**<sup>®</sup> superplasticiser significantly reduces the volume of water needed in the concrete production whilst offering the possibility of high workability. This in turn reduces the volume of capillary pores within the concrete matrix. **Sika 1+** blocks the remaining capillary pores to achieve a watertight concrete, effective to 10 bar pressure; equivalent to 100 metres head of water. **Sika Watertight Concrete** holds a BBA certificate, has a 50 year track record and is offered with a **Sika** backed warranty.

The construction joints were taken care of with the **Sikaswell**<sup>®</sup> jointing system, which consists of joint sealing profiles that expand on contact with water to seal any voids between adjoining concrete slabs.

The Crocodile Swamp is already a huge attraction and apart from the crocodiles, visitors can enjoy a collection of pythons and boa constrictors and a dazzling array of tropical plants in their own enclosures within the swamp.

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## Sika Concrete Systems

### Specialist Concretes

Corrosion resistant concrete  
Micro-silica concrete  
Underwater concrete  
Early strength concrete  
Self-compacting concrete

### Admixture Range - premix and precast concrete

Concrete admixtures  
Mortar admixtures  
Grouting admixtures  
Powdered admixtures

### Watertight Concrete

Solutions for basements and swimming pools  
Watertight jointing systems  
BBA certified  
40 year track record



**For further information or to discuss your project requirements**  
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