

Project Info



15 / 01 / 13



CC5™ Batched Rolls



30m²



Transverse and Vertical
layers



Coatham Marsh
Nature Reserve, UK



Tees Valley Wildlife
Trust



CC5™ was used by
Tees Valley Wildlife
Trust to construct
a 5m long artificial
sand martin bank at
Coatham Marsh nature
reserve.



Completed Sand Martin Bank

In January 2013, Concrete Canvas® GCCM* (CC) was used to create a 5m long artificial sand martin bank at Coatham Marsh Nature Reserve to enhance wildlife habitat on the site. The work formed part of a project funded by the Environment Agency (EA) who are currently involved in improving coastal defences along Redcar seafront, and saw a need to balance this construction with some improvements for local wildlife.

Most artificial sand martin banks are constructed from concrete blocks, with sand and/or earth banked up behind. However, TVWT wanted to limit the amount of concrete used in the project, due to the difficulties and logistics involved with repairing or removing it in the future. CC was chosen as it can be supplied in man-portable rolls, can be installed in the rain, is more environmentally friendly than traditional methods due to its low alkali reserve and wash out rates, and offers significant cost savings over traditional methods. The works were carried out by Tees Valley Wildlife Trust.

The shape of the sand martin bank was defined a 5m long timber sub-structure consisting of timber posts driven into the ground, and braced and reinforced by a frame and shuttering. The CC was laid vertically over the shuttering, pulled taught to ensure it followed the contours of the frame and fixed using wide-head screws and galvanised nails. Crosses were then cut into the material to allow insertion of plastic nesting tubes, and the CC hydrated. Hydration was given again the following morning to ensure the material would set completely. Sandbags were then stacked inside the timber structure to reduce any sinkage, before the back of the structure was covered with mounded up soil, which will eventually green over and allow the structure to blend in to the landscape.

*Geosynthetic Cementitious Composite Mat





Timber frame prior to installation of CC8



Hydration after insertion of nesting tubes



Structure prior to installation of sandbags and mounded soil

“Use of the CC8™ on our nature reserve couldn’t have been easier and saved us a great deal of time and effort. We didn’t have to worry about the footings being in 18 inches of water as the material sets hard even in these conditions and was very easy to attach to the sub-frame. It is a great product with many applications. We will definitely be using Concrete Canvas again.”

Dan van den Toorn
Reserves Officer, Tees Valley Wildlife Trust