

Project Info



12 / 03 / 2012



CC8 batch rolls



14sqm



5 cross width layers



BRE Innovation Park,
Watford, UK



Concrete Canvas Ltd



Lining of a grassy
swale demonstrating
CC as a rapidly
installed, eco-friendly
concrete water
management solution



Concrete Canvas (CC) is the only way of laying a thin concrete layer from a prefabricated roll of material. This enables up to 150mm of poured concrete to be replaced with just 8mm for many surfacing applications. As a result, material savings of 95% can be achieved for a typical construction project.

This directly reduces the CO2 footprint of construction work not only through using less material but also through reduced road transport and time on site.



CC traps dry concrete powder in a 3-dimensional fibre matrix and has a very low wash-out rate. Testing shows that CC loses only 3% by mass. By comparison, specialist underwater concretes typically lose between 10-15% whilst also requiring much larger volumes to be poured.



CC is delivered in bulk or man portable batched rolls and can be cut and tailored easily on site using basic hand tools. For ditch lining applications, CC layers are overlapped in the direction of water flow and fixed into position using auto-fed dry wall screws.



Installation start



Laying and tailoring the CC to the swale profile



Hydration



Completed CC lined swale



CC has been approved for use by the Environment Agency (EA) Biodiversity team. Benefits cited included 'surface roughness to provide diversity in the channel's morphology' and its ability to introduce 'sinuosity in the channel line'.



Untreated CC will naturally "green" over time as the textured top surface allows moss growth, whilst the fibre-reinforced concrete layer will prevent root-growing vegetation, which would otherwise restrict water flow and increase maintenance costs.

