

## Project Info



20 / 11 / 14



CC5™ Bulk Rolls



1150m<sup>2</sup>



Transverse layers



Sappi Ngodwana Plant,  
Nelspruit, Mpumalanga  
Province, South Africa



Joubert en Seuns



CC5™ used to line a  
channel created to  
manage rainwater and  
prevent erosion



Completed installation

In November 2014, Concrete Canvas® GCCM\* (CC) was used to line a channel created to manage rainwater and prevent erosion. Pre-cast concrete was considered for the project, however the consulting engineers, Jones & Wagener, recommended CC as it would result in a faster and more cost efficient install. The project needed to be completed before the December holidays to avoid high labour costs and the installation time required for pre-cast concrete would have prevented the works being completed in time. The works were carried out by Joubert en Seuns for Sappi.

The channel was excavated to profile using a 20T excavator and any loose soil compacted to prevent voids under the CC and ensure intimate contact between the CC and the substrate. Additionally, anchor trenches were cut at each shoulder and the excavated material kept to be used as backfill later. Bulk rolls of CC5™ were delivered and batched on site to a length of 3.2m. The CC was laid transversely in the direction of water flow, with an overlap of 100mm created between layers. The overlaps were sealed and screwed at 200mm centres before being hydrated with water sprayed from a 20,000L water tanker. Once hydration was complete, the anchor trenches were backfilled to prevent undermining of the CC.

A total of 1150m<sup>2</sup> of CC5™ were installed by 10 people in 3 days, during thunderstorms and in temperatures of up to 30°C. The client was impressed with the speed and ease of installation, with the former resulting in large labour cost savings.

\*Geosynthetic Cementitious Composite Mat





Excavation



Compacting the substrate



First layer of CC



Backfilled anchor trench and jointed overlaps



Hydration



Finished project