

Project Info



11 / 03 / 14



CC5™ Bulk Rolls



1,000m²



Vertical layers



Tarragona, Spain



UTE GAT for ADIF



CC5™ used to prevent rainwater runoff infiltrating a slope and causing slip.



Deploying bulk roll of CC5™

In March 2014, Concrete Canvas® GCCM* (CC) was used to protect a slope located near Camp Tarragona station, Tarragona, Spain. The slope had previously been lined with Trinter, a synthetic geomat, however this had been unsuccessful in preventing erosion and an alternative was sought. Shotcrete was considered, however the rebound would have necessitated closing the adjacent high speed rail line.

Vegetation that had penetrated the Trinter geomat was removed and bulk rolls of CC5™ were delivered to site. The CC was mounted onto a spreader beam and hung from a truck crane stationed at the top of the slope. The bulk roll was positioned at the toe of the slope and unrolled upwards, with the installation team ensuring an overlap of 100mm was created between layers. The CC was fixed at the crest with 1m ground pegs inserted every 500mm. The overlaps were sealed and screwed at 500mm intervals down the face of the slope. Hydration was achieved using a 6000L bowser and pressure hose with spray nozzle attached, with re-hydration an hour later due to the steepness of the slope and CC5™ being used.

In total, 1000m² of CC5™ were installed by 5 people in 3 days on a difficult to access slope. ADIF were impressed with the speed and ease of installation, and has specified CC for use on a similar project on the Madrid-Valladolid high speed rail line. The train line was able to remain open for the duration of the installation, with no disruption to the rail service.

*Geosynthetic Cementitious Composite Mat





Site before works began



Manoeuvring CC5™



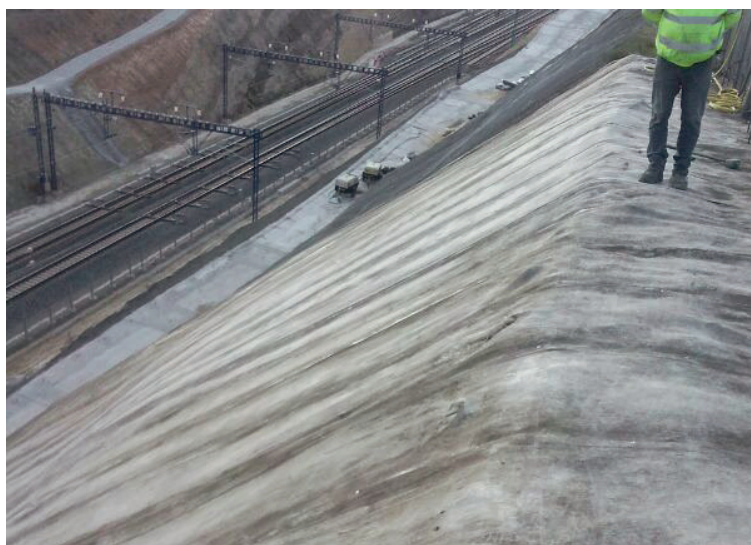
Unrolling CC5™ up slope



Ground pegs used to fix CC to substrate at crest



Overlapping layers of CC



Completed installation