

Project Info



28 / 09 / 17



CC5™ Bulk Rolls



50m²



Vertical layers



Maasvlakte Oil Terminal,
Rotterdam, The
Netherlands



ProTanks Contracting
BV



CC5™ was used to
protect the slope of
a newly constructed
bund during renovation
works of a jetty at an oil
terminal site.



Birdseye view of the Maasvlakte Oil Terminal

In October 2017, Concrete Canvas® GCCM* (CC) was used to protect a bund slope at the Maasvlakte Oil Terminal (MOT) in Rotterdam, in the Netherlands.

The bund was constructed during the renovation of a 45-year-old jetty at the MOT site, one of the largest oil terminals in the world, with 39 crude storage tanks each 85m in diameter with a capacity of 114,000m³. The terminal is owned by five of the major oil refineries (BP, ExxonMobil, Shell, Total and Aramco) and Vopak.

The works on the jetty had required a year of preparation and the client, MOT, had calculated a total of 3 weeks to fully carry out all works on the site with a very strict schedule. As a result, the allocated time for carrying out works on the slope was just 4 days. These time constraints, along with limited access, ruled out the use of many conventional concrete methods for the works.

The project manager and Manager of Assets & Projects at MOT, was already familiar with CC and proposed the use of the material for this project as an alternative to conventional concrete solutions. MOT were keen to explore how CC can be used, with the possibility of using it for future projects, and approved the proposal. The works were carried out by ProTanks Contracting.

*Geosynthetic Cementitious Composite Mat





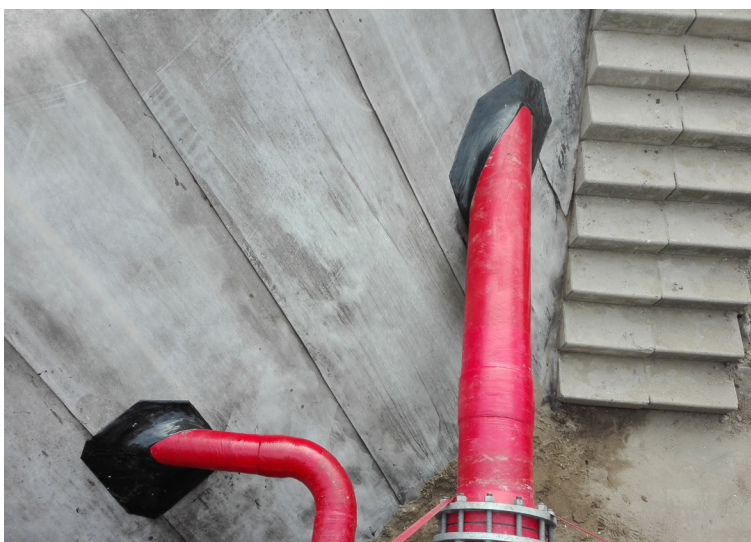
The slope was graded and prepared prior to installation



The CC was easily cut to accommodate existing infrastructure



Hydration was given via hose



Polysulfide joints were added post-installation

Prior to installation, the slope was prepared and anchor trenches were dug at the crest and toe. A bulk roll of CC5™ was then delivered to site and mounted onto a spreader beam hung from a crane for easy dispensing. The CC was then unrolled and laid vertically down the slope, with subsequent layers overlapping the previous by 100mm. The overlaps were sealed with Sealfix adhesive sealant and jointed using collated screws and concrete nails were necessary. Where needed, the CC could be easily cut to accommodate existing infrastructure such as protruding pipework. Polysulfide joints were produced post-installation to fit around these sections to prevent ingress. This was repeated around the length of the slope before the edges of the CC were captured in the anchor trenches, which were backfilled for neat termination and to prevent ingress at the edges. Once installation was complete, the CC was hydrated.

50m² of CC5™ were installed in 3 days by a team of 2 people despite tight time constraints and limited site access. The client was very impressed with the speed of the installation and has proudly revealed the innovative solution to it's shareholders on the opening of the newly renovated jetty.