

Yantin Container Terminal Phase III, China

In Mar 2003, the construction of quays for Yantin Container Terminal Phase III commenced in China. Controlled Permeability Formwork (CPF) was used in Phase II of the project and also specified for the casting of quays in the current Phase III project. The client required a dense concrete where the structure is exposed at any time to salt water or salt water spray.



Figure 1. The trial beam, with 3 different CPF liners used.

Process

The contractor, CHEC carried out a trial in Dec 2002 to determine the effect of different CPF liners. 3 different CPF liners were glued to the same metal formwork under the same conditions. Cores were drilled in the concrete cast with different CPF liners and tested at an independent laboratory to examine their effects.



Figure 2. Concrete surface achieved without formliner (left) and with Formtex[®] (right)

Follow-up

The concrete cast with Formtex[®] was smooth, dense and without blowholes. Together with a satisfactory result on the independent laboratory testing, an initial order for 3000 m² Formtex[®] was placed.



Figure 3. Concrete core sample is drilled for testing.