



Reference

Repair Bridge Construction Object T57 (Highway N6 Thun-Bern)

Repair Bridge Construction Object T57 with rapid-hardening concrete Concretum® C-DRY (battle deck floor) and Concretum® D-ZERO (shoulder curbs)



Product:
C-DRY / D-ZERO

Project duration:
2007 - 2008

Concrete supplier:
Frischbeton Thun, Werk Wimmis

Building contractor:
Marti AG, Bern

Authority:
Tiefbauamt des Kantons Bern

Engineers:
B+S Ingenieur AG, Bern

Initial Status

The bridge construction T57 of the highway Thun-Bern was repaired. The existent structural concrete was removed and replaced by a new and strong screed of approximately 20 cm. The waterproofing which was applied on this new structural concrete required a moisture content of the underground concrete of less than 4 CM-%. Using traditional concretes, this takes several weeks. During that time, the entire car traffic would have had to be lead through only two lanes for both directions.

Solution and evaluation

To reduce the off-times, the concrete Concretum® C-DRY was used. After only 48 hours Concretum® C-DRY arrives at a moisture content of 4.0 CM-% which allowed the application of the sealing. As a result, the off-times could be considerably reduced and the waterproofing system could be applied with high



quality at the same time.
In a second step, the shoulder curbs were maintained.
Normal concretes show a tendency to crack after the placing of concrete. Therefore, a low-shrink concrete was required. Concretum® D-ZERO was chosen for its shrinkage coefficient which is less than 0.2 %.

