

ABSTRACT

There are projects where opening the pavement to traffic in less than the 5 to 7 days is needed, but an 8 to 12 hour opening time is not necessary. The study examined fast track concrete with Type I cement and admixtures.

The variables studied were:

1. cure temperature
2. cement brand
3. accelerators
4. water reducers

A standard water reducer and curing blankets appear to be effective at producing a 24 hour to 36 hour opening strength. An accelerator and/or high range water reducer may produce opening strength in 12 to 24 hours. Calcium chloride was most effective at achieving high-early strength.