

Acting on Climate

#LHLowCarbonTransition

Concrete Road Pavement: Using Cements with Reduced Clinker Content

What is the challenge?

Expansion and preservation of road infrastructure is quite resource-intensive. Authorities often stipulate the use of clinker rich OPC (CEM I) for concrete road pavements (highways). Clinker is the CO₂ emitting component of cement.

How can low-clinker content cements be used in large scale projects?

Key figures

1 km highway incl. basement (3 lanes and emergency lane):

- CO₂ savings of ~ 12 % when using CEM II/A (180 t CO₂/km)
- CO₂ savings of ~ 39 % when using CEM III/A (590 t CO₂/km)

Our solution

Holcim Germany offers suitable clinker reduced cements (CEM II and CEM III, made from clinker mixed with by-products) which fulfill the special requirements for concrete road pavement construction. Significant reduction of the CO₂ footprint can be achieved (up to 40%) if such cements are used.

Holcim Germany is in close exchange with authorities and construction companies to push its low CO₂-solutions. In the recent past, several highway projects were realized (e.g. A7, A1) using CEM II and CEM III.



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