

## STRUCTURAL RECYCLING OF PAVEMENT IN CROATIA

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### *ABSTRACT*

Road rehabilitation methods applied on roads often include the use of cold recycling process which reduces energy because it is unnecessary to warm up material for pavement strengthening. All over the world milling machines are used in order to remove million of tons of asphalt pavements each year to perform pavement rehabilitation and road widening projects based on recycling of pavement structure. This relatively new experience should motivate experts in Croatia dealing with road maintenance and repair because it is the fact that the majority of roads in Croatia are made as flexible pavement structure with an asphalt surfacing. Besides that, the structural condition of those pavements is such that the recycling technology seems to be cost-effective solution in most cases of road rehabilitation.

Croatian example of cold recycling technology which was first applied in 2008 is presented through the rehabilitation of the state road DC 55 from Vinkovci to Županja. The authors discuss the accomplished results and first experiences of pavement cold recycling technology in Croatia using foamed bitumen. Expectation in terms of pavement strength, as well as resistance of rehabilitated pavement structure against the frost penetration is also discussed. It is planned to provide pavement monitoring of this road which will include FWD measurement and surveillance of surface deformation. This should enable sustainability assessment of the recycling technology under local conditions.

*KEY WORDS:* Asphalt pavements, cold recycling, foamed bitumen, Croatia