



PROJECT PROFILE

Title	Analysis and development of cold-mix materials for use in national road network	
Contractor	University College Dublin	
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NRA Mentor	Tom Casey	
Start date	Oct-07	
End date	Sep-10	
Status	On-going	
Type of project	Research Fellowship: PhD programme (Thomas Doyle)	
Project reference	NR/250/04 PO 6050	

Description	<p>This research focuses on the use of cold mix as a road building material as an alternative to the traditional hot mix. Cold-mixes are less expensive and consume less energy in construction and thus may have a significant benefit in terms of cost and sustainability. Although they have been used for low-traffic roads in Ireland, there have been problems due to poor quality control and the lack of performance data and effective in-situ test methods. The project consists of a review of cold-mix materials, laboratory trials of different mix specifications, and full-scale trials</p>	 <p style="text-align: center;">Cold mix: addition of bitumen</p>
Objectives	<p>The objective of the project is to examine the performance of different cold-mix materials in road pavements. Laboratory tests and full scale trials are being carried out. An effective test protocol is also be developed as current test methods developed for hot mix materials are considered inappropriate. This research will enable the NRA to update its material specifications to include different cold-mix materials.</p>	
Benefits	<p>The research will be used to update the current NRA material specifications to include different cold-mix materials. An effective test protocol will also be developed. This will be of considerable benefit to the NRA as it will enable cold-mixes to be used more widely resulting in lower road construction costs and a reduction in energy consumption.</p>	
Outputs	<p>The project deliverables consist of specifications and test protocols for cold mix materials. These will be incorporated into the NRA material specifications.</p>	