

Project title:	Frost damage: development of a freeze-thaw test for PA (Vorstschadeproof)		
Project number:	InfraQuest-2012-64		
Start date:	October 2012	End date:	June 2013 (tentative)
Project team:	Tom Scarpas (TU Delft), Katerina Varveri (TU Delft), Stravos Avgerinopoulos (TU Delft), Sandra Erkens (RWS), Jan Voskuilen (RWS), Paul Kuiper (RWS), Cecile Giezen (project leaderTNO), Dave van Vliet (TNO), Siska Valcke (TNO)		
Embedding in IQ-programme:	<p>The project relates to the IQ Masterplan 'Wegen' (Onderzoeksthema Ontwikkelen Objectieve Kaders).</p> <p>By evaluating the frost damage related to performance (ravelling) of porous asphalts in practice, suggestions for relations and correlations of material properties and practical performance will be made. The obtained knowledge will contribute to predict service life of porous asphalt in order to make more reliable prognosis of functional performance in practice.</p> <p>This research is a continuation of previous frost damage InfraQuest research IQ-2011-52. In this research a test protocol was designed to simulate to freeze / thaw load.</p>		
Type of project:	<input checked="" type="checkbox"/> Fundamental concept	<input type="checkbox"/> Integration & development	<input type="checkbox"/> Validation of results
			<input type="checkbox"/> Product-in-context / valorisation
Graphical abstract:	<pre> graph LR A[conditioning] --> B[testing] B --> C[modeling] subgraph RedBox [] B C end </pre>		
Research questions:	The aim of this project is to develop a laboratory test by which the frost sensitivity of porous asphalt can be predicted. This project focuses on the identification of mechanical tests (like DTT, DSR-test, uniaxial compression test, RSAT) or alternative test methods; how can these test be applied, modeled and validated as an indicator of the resistance to frost damage.		
Conclusions:	-		
Other results:	-		
Dissemination:	The first step of this research will lead to a work plan for the further interpretation of the project.		
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