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## **USE OF HYDRATED LIME AS AN ANTISTRIPPING ADDITIVE IN HOT MIX ASPHALT**

**B.Sengoz \***

Research Assistant, Dokuz Eylul University (DEU),TR

**A.Topal**

Research Assistant, Dokuz Eylul University (DEU),TR

\*DEU, Faculty of Civil Engineering, Transportation and Highway Division,  
Buca Tinaztepe Kamp., 35160, Buca/Izmir/Turkey, burak.sengoz@deu.edu.tr

### *ABSTRACT*

The majority of the studies on moisture and water damage in hot mix asphalt deals with an observed phenomenon called stripping. Stripping is the displacement of asphalt films from the aggregate surfaces that occurs when the aggregate has a greater affinity for water than asphalt. Water may get between the asphalt film and the aggregate surface, causing adhesive failure, or water may combine with asphalt to affect the cohesiveness strength of the material.

One of the most promising ways to prevent stripping is to treat aggregate with anti-stripping additives, yet no research has been conducted in Turkey so as to assess its effectiveness.

In order to find out the effectiveness of these additives, different type of anti-stripping agents and hydrated lime are used. Seven test groups are performed; two using chemical additives and three containing hydrated lime (high calcium hydrated lime, dolamitic hydrated lime and quick lime) and control samples without additives. In all these groups, Nicholson Stripping Test, Texas Boiling Test, Indirect Tensile Strength Test and Marshall Test are conducted and results are evaluated.

**KEY WORDS:** Stripping, moisture, anti-stripping additives, hydrated lime