

3rd INTERNATIONAL CONFERENCE
BITUMINOUS MIXTURES AND PAVEMENTS
Thessaloniki, Greece, 21-22 November 2002

IMPROVEMENT OF ASPHALT PAVEMENTS ON HIGHWAYS IN GERMANY THROUGH MICRO-SURFACING

H. J. Hager *

Director, Bituminous Pavement Laboratory, POSSEHL Spezialbau GmbH, D

W. H. Voelker

Consultant Engineer, Pavements and Materials, Voelker & Partner, D

* POSSEHL Spezialbau GmbH, Rheinstr.19, 65185 Wiesbaden, D

ABSTRACT

Friction on many German Highways was found to be insufficient to support the ever-increasing sustained traffic. While the problem has been realized for some time, it was not thoroughly investigated until a measuring system, the Sideway-force Coefficient Routine Investigation Machine (SCRIM) allowing continuous registration of highway surface friction conditions, became available. A German Federal Standard was developed and minimum friction values were included in the Specifications. A program of mapping the friction coefficients of major highways commenced.

For new pavements, several friction improvement systems can provide the required initial friction values, but not all systems will sustain the initial friction and none will resist rutting, especially on highways under heavy-load and high traffic volume.

“Micro-surfacing”, originating in the USA, was further developed in Germany and is covered under Federal Standards and Specifications. It is well suited for improving the surface friction of existing pavements; it will rejuvenate aged pavements and will greatly extend its useable age. Micro-surfacing will reinforce existing pavement surfaces and reduce the occurrence of rutting. It is ideally suited for rut-filling in existing pavements.

Discussed are design, specifications and construction of Micro surfacing Slurry Seals.

KEY WORDS: Micro-Surfacing, Maintenance, Friction, Materials, Construction