

ASSESSMENT OF GENERIC POTHOLE REPAIR MATERIALS

J C Nicholls

TRL Limited, Wokingham, UK

C Karcher

EAPA, Brussels, Belgium

A Adesiyun

FEHRL, Brussels, Belgium

J Komacka

University of Zilina, Slovakia

K Kubanek

TPA GmbH, Stuttgart, Germany

A Hartmann

University of Twente,
Netherlands

A Ipavec

Slovenian National Building &
Civil Engineering Institute

E Nielsen

Danish Road Directorate,
Copenhagen, Denmark

ABSTRACT

Potholes are a major problem for road authorities. There are many causes of potholes, with cold damp conditions being considered the main cause in colder climates whilst countries nearer the equator also have extensive potholes. Currently, there is no pan-European, or even national, assessment method for assessing the suitability of potential repair materials. A European ERA-Net project was set up to look at permanent pothole repairs. The project team developed a definition and selected suitable test methods based, as far as possible, on European norms following an extensive questionnaire. The project team also reviewed some national trials, carried out laboratory tests on proprietary repair materials (hot asphalt, cold asphalt and resin-based varieties) and undertook life cycle cost analyses for different scenarios. From the findings, guidelines have been produced to select a repair technique and/or material with a durability corresponding to the estimated lifetime of the existing pavement. The paper briefly reviews the research findings and then explains the guidelines for assessing pothole repair materials. However, the project team does understand that the cleaning out of the pothole and the application of the repair are also major influences on the durability of any repair.