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## **FAST –the Fast Asphalt Surfacing Test**

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**Abstract:** This paper considers a test method developed to rapidly investigate the wear characteristics of surfacing asphalt mixes. The main aggregate tests used in the UK for road surface aggregate is polished stone value (PSV) and aggregate abrasion value (AAV). Both are limited in their ability to meet the Construction Products Regulation requirement of predicting performance for the life of the product. The Friction After Polishing method (FAP) can assess both aggregate and the asphalt mix in which they are used. Testing the asphalt mix test offers better prediction than just testing aggregate. The FAP test equipment is expensive. The two devices in the UK and Ireland have frequently suffered break-down problems. These issues prompted development of FAST –the Fast Asphalt Surfacing Test. It was based on observation of what happens to an asphalt surfacing mix during its in-service life and then trying to replicate this as quickly as possible. Observation shows the bitumen to initially wear off and the aggregate particles starting to polish as they become exposed. The next stage is either wear of softer aggregate particles and losing their edges or harder particles becoming polished. Mixtures of harder and softer particles will exhibit both phenomena. The FAST challenge was to recreate these complex conditions quickly and cheaply in the laboratory. After much discussion the method chosen uses a rotary floor cleaner fitted with an abrasive scrubbing pad. This paper details how this test was developed and how it can be used to predict surfacing asphalt performance cheaply in less than 10 minutes either in the laboratory or onsite.

**Keywords:** FAST, surfacing asphalt test, wear, prediction.