

THIN SURFACING: FIRST LARGE SCALE APPLICATIONS IN GREECE

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ABSTRACT

Thin surfacings of hot asphalt mixtures developed during the 1980s and due to their advantages in comparison to conventional surfacing layers, in 1990s, started to be used in many countries. In Greece, the first application of a 25mm thin asphalt surfacing, on a trial basis, was carried out in 2001. Later on, in 2005, the first large scale application was carried out on urban roads, while in 2006, the first very large scale application took place on a motorway.

Thin asphalt surfacing laid at an average thickness of 25mm requires smaller quantities of materials than conventional surfacing courses. This results in lower construction cost and in economizing of natural resources for surfacing aggregates. Thin asphalt surfacing, among other things, has very good surface characteristics, reduces the generated traffic noise and has good draining ability.

This paper firstly outlines all available surface courses, with emphasis to thin asphalt surface layer. Then, it gives analytical information regarding the materials used, the mix design, the construction and the problems encountered, in the first two major applications of thin surfacing in Greece.

The asphalt mixture used was a 0/10mm asphalt concrete for thin layer (TAC) consisting of diabas surfacing aggregates and SBS modified bitumen.

KEY WORDS: Thin surfacing, thin asphalt concrete properties, application