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FRICTION CHARACTERISTICS OF THE NEW ATHENS INTERNATIONAL AIRPORT MEETING THE ICAO DESIGN OBJECTIVE FOR NEW PAVEMENT SURFACES

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ABSTRACT

The design for the New Athens International Airport demanded full agreement with ICAO Standards. Specifically, the friction coefficient for the new runway pavements had to meet the Design Objective for New Pavements recommended by ICAO. The PCC Pavement met the friction level, but is not discussed here.

Normal Hot Mix Asphalt does not meet the design objective without special treatment. Even Grooving, often employed to improve runway conditions and friction, will not meet the ICAO Standard

This paper describes the pavement evaluation process and the extensive field-testing, including testing of an on-site standard, grooved pavement section.

Discussed is the process of selecting a Friction Course meeting the contract requirements, because grooving failed to bring the friction coefficient to the specified level. The construction process is described and equipment and materials are discussed in detail. Contract specifications are outlined.

The results of the Acceptance Testing Friction Survey, leading to the Licensing of the runway pavement, are included in the report.

The selected friction course exceeds the ICAO requirements by a comfortable margin. Experiences gained from other European Airports indicate that the pavements at NAIA will perform very satisfactorily for a sustained period and for considerably longer than standard flexible pavements.

KEY WORDS: ICAO, HMA Pavement, Friction, ANTISKID, Friction Course