

Title (en)

Real-time method for automated prediction of internal layer temperature of paving material during paving operations

Title (de)

Echtzeitverfahren zur automatischen Vorhersage einer Innenschichttemperatur von Asphaltmaterial bei Asphaltoperationen

Title (fr)

Procédé de prédiction automatique en temps réel de température de couche interne de matériau bitumineux lors des opérations de pavage

Publication

EP 2666908 A1 20131127 (EN)

Application

EP 12169276 A 20120524

Priority

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Abstract (en)

Method for determining internal temperature of a paving material. When a mat of a paving material is distributed over the road, internal temperature of the material at any particular spot on the mat is determined based on surface temperature measured at that spot and on the dependency between internal and surface temperatures of the material derived from temperature measurements taken at the at least one other, representative, spot on the mat. The dependency is derived from substantially simultaneous measurements of internal and surface temperatures of the material taken at the representative spots on the mat over a period of time. In this manner, cooling behavior of the particular paving material being used at the paving site, for particular ambient conditions present at that time, may be determined for the representative spots and then used to predict cooling behavior for other spots on that mat.

IPC 8 full level

E01C 19/28 (2006.01)

CPC (source: EP)

E01C 19/288 (2013.01)

Citation (search report)

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- [I] EP 1103658 A2 20010530 - BOMAG GMBH [DE]
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- [I] BOSSEMEYER H R: "Die praktische Berechnung der Abkühlung bituminöser Schichten", BITUMEN, ARBEITSGEMEINSCHAFT DER BITUMEN INDUSTRIE. HAMBURG, DE, vol. 68, no. 1, 1 January 1968 (1968-01-01), pages 10 - 18, XP007921251, ISSN: 0006-3916
- [I] JOCHEN WENDEBAUM: "Nutzung der Kerntemperaturvorhersage zur Verdichtung von Asphaltmischgut im Strassenbau", DISSERTATION UNIVERSITÄT FRIDERICIANA ZU KARLSRUHE (TH),, 27 July 2004 (2004-07-27), pages 1 - 112, XP007921250

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Designated contracting state (EPC)

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