

**DENSE GRADED COLD EMULSION MIXTURES :
PROPOSED MIX DESIGN METHOD**

by

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ABSTRACT

Dense graded cold emulsion mixtures started to be used in all pavement layers in various countries. Until today there is no internationally accepted mix design methodology.

In this paper a new intergraded methodology is proposed for the design of dense graded cold emulsion mixtures. The methodology uses the Marshall equipment but the design criteria are : Soaked stability, Retained stability, Water absorption, Total voids, Thickness of bitumen, and Degree of aggregate coating. All tests, mixing and compaction are carried out at temperature of $22^{\circ}\text{C} \pm 1^{\circ}\text{C}$. The proposed design method includes all types of aggregate gradations (continues and gap graded) producing dense mixtures. Similar methodology has been proposed by the author and is now in use in Indonesia.

The paper also outlines the production, laying and sampling control of these type of mixtures.