DAMA - Material for reduction in noise pollution.

Porous asphalt mixture is a surface layer which eliminates the danger of hydroplaning and offers enhanced surface friction thus reducing spray and night glare during wet weather conditions. This is required on Flexible Pavements in India for reducing noise and providing good riding surface during wet weather conditions. In view of such complex and multiple requirements of a surface layer, this layer is also known as drain asphalt, silent asphalt, porous asphalt, high friction open graded asphalt and open grade friction course. Porous Asphalt mixtures have interconnected voids and high permeability through which water is quickly drained out from the top surface into the pavement and is removed from the surface. The macro-texture of the porous asphalt is higher than both the dense-graded mixtures and the coarse-graded bituminous mixtures. This asphalt mix contains 20 to 22% porosity by volume of the mixture. Porous asphalt mixture requires stiff bitumen with additives to maintain the durability of mixes. Drain Asphalt Modified Additive (DAMA) was evaluated as a potential additive/modifier for use in porous asphalt mixture, which are in use in other Asian countries.

Porous asphalt mix designed using 1% DAMA and 4.4 % bitumen (60/70 paving grade bitumen) with the given (Japanese) gradation can fulfill the purpose of surface drainage and noise absorbing porous asphalt mixes. Further, studies in the real life field conditions should be initiated which can be used to support and strengthen the laboratory studies/results obtained through this project.

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