WARM MIX ASPHALT IS THE ASPHALT OF THE FUTURE

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Abstract

Warm mix asphalt is essentially the same as hot mixed asphalt except that it has been mixed at a temperature which is 20 to 40 °C lower than hot mix asphalt by using new warm mix technology. This paper will explain how asphalt can be produced at a lower temperature without compromising the performance properties of the asphalt. In doing so it will show what the benefits are for; the environment and the community, the asphalt manufacturer and the paving contractor, and most importantly the asset owner.

The paper will share information on international and local best practices with regards to the design, manufacture and performance of warm mix asphalt incorporating the use of RAP. This will be supported by data on performance tests carried out on locally produced warm mixes using two different technologies; an organic wax additive and foamed bitumen. Some of the paving sites have been retested to monitor the performance of the warm mix asphalt during the in-service life.

Warm mix asphalt offers local Councils an opportunity to provide an asphalt surfacing with a longer life because the binder is less aged during mixing, lower permeability and less binder absorption in the aggregates.

Key Words: warm mix asphalt, performance testing, performance benefits