

ناس للأسفلت
NASS ASPHALT
The Professionals who care

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ENVIRONMENTAL SOLUTIONS

We are living in a world where it is a growing requirement to reduce the environmental impact of the work we carry out. We believe there are 2 very simple and easy ways to apply this to road construction. The first is to reuse millings as an asphalt pavement. This can be done in 1 of 2 ways, it can be added to the asphalt plant as percentage of the mix (requires specialized plant) and mixed hot or can be mixed cold.

Mixing cold has a number of advantages:

- More of the product can be used
- It saves more energy
- Is generally non perishable as it can be laid cold
- Conventional asphalt plants can be used

We have carried out extensive research on cold mixes over the last 2 years. We have found that although they start off as quite low strength mixes when tested to marshal criteria, they greatly improve in strength as they cure and their resistance to rutting is extraordinary high after sufficient curing.

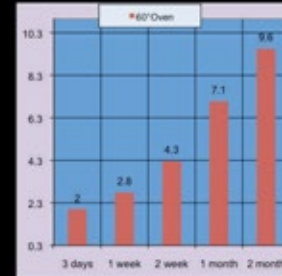
These mixes would be ideal for temporary roads, desert roads and a base-course layer on housing estate roads.

Emulsified Prime Coat

The second environmental improvement would be to use emulsion as a prime coat. This is largely used as such in many countries worldwide including the USA, Malaysia, Brazil, Mexico, Southern Africa, Canada as well as a number of European countries. At the moment the priming agent is an MC grade which consists of bitumen cutback with about 40% kerosene. When the prime coat is applied to a sub-base it penetrates the surface of the sub-base. Over a period of time the kerosene evaporates leaving an adhesive bituminous membrane which adheres to the asphalt base-course. Emulsion prime coat acts slightly differently. The bitumen is carried in the emulsion, it penetrates the sub-base and after a period of time the water and bitumen break, i.e. separate. The water evaporates leaving an adhesive membrane which adheres to the asphalt base.

2 years ago we underwent a series of trials to prove that emulsion would make a suitable prime coat. These were successful as demonstrated by the photograph shown below. We were given tacit approval for its use but were refused formal approval or an inclusion as an appendix to the specification. Without formal approval or inclusion into the specification site engineers will not use the product, therefore widespread use of this product has not been possible.

75 Blows compacted Sample



Cold Mix Stability Test



The emulsion sprayed prime coat- Base course core sample well bonded with sub base

