

ROAD MAINTENANCE PRODUCTS

Length of road network in India is estimated at 33 lac kilometers comprising of

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| National highways | 67000 KM |
| State highways | 132000 KM |
| Major district roads | 468000 KM |
| Rural roads | 2650000 KM |

Most of the roads are black topped. Every year central and State governments spend crores of rupees on repairs and maintenance of these roads. While asphalt is the main material used in black top roads, many special products have been developed to help the engineers in paving and maintaining the roads. Asphalt itself is modified in a number of ways to improve the properties or facilitate quick repairs.

Repair and maintenance of roads is an important economic activity offering growth prospects for contractors and material suppliers.

Proposal :

Investment in a medium scale unit for manufacture of specialty products that go into road repair and maintenance is recommended

Product mix :

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| Mastic asphalt / polymer modified mastic asphalt | 15000 t / yr |
| Pothole filling compound (cold mix) | 3000 t / yr |
| Additives for asphalt emulsions | 3000 t / yr |
| Thermoplastic road paint | 600 t / yr |

Market :

Mastic asphalt / polymer modified mastic asphalt: Mastic asphalt differs from normal asphalt (the term asphalt is being used to denote bitumen aggregate mix called asphalt concrete) in the percentage of bitumen in the asphalt mix. Normal asphalt contains about 5 % bitumen and mastic asphalt 7 to 10 %. Many municipal corporations are now shifting to paving roads in heavy traffic areas and junctions with mastic asphalt. Polymer / rubber modification of asphalt increases life of asphalt.

Pothole filling compounds: Potholes or common features of city roads particularly in monsoon season. Because of continuous traffic, the time and space available for repair operations is limited. In such conditions ready to use and fast curing asphalt mix is the answer. Pothole filling compounds that can be cold mixed onsite are now available. There is a large market for this product.

Additives for making asphalt emulsions: Using Asphalt emulsion in place of hot mix saves on energy and is more convenient. This alternative is gaining acceptance. Emulsifying agents in the ratio of 1 to 1.5 % are used to make asphalt emulsions. There is good market for these formulations.

Road paints: paints are one of the main consumables on roads with heavy traffic. Paints containing thermo plastics have longer life. This type of paints in film form or paint form is in use. The demand is increasing.

Manufacturing process:

The manufacture of asphalt products have two stages. The first stage of preparing the ingredients is carried out in a factory. The production of asphalt is done at site or in the hot mix plant.

Technology:

Technology for modification of asphalt with polymer / crumb rubber addition is available from a number of sources. Thermoplastic paint technology is available from research institutions.

Plant and Machinery

The equipment required are mixers and material handling equipment.

Raw materials:

Different specialty chemicals are the main raw materials

Utilities

Power is the main utility

Project cost:

The plant can be set up with a capital outlay of 1.5 crores.

Turnover and profitability

To be worked out based on type of operations and product mix.

Suggested location

In proximity of any major city.

Entrepreneur profile:

This project is well suited to entrepreneurs already running a hot mix plant. This can be planned as an extension of the hot mix operations.

Apitco's consultancy:

1. Technology tie-up
2. Market study
3. Project planning