Title: Road carpeting & repairing by utilizing plastic waste in asphalt.

Abstract:

This invention, in particular, relates to the road forming material. The innovation's primary purpose is to invent a unique and novel composition through which waste material will be converted into a value-added product. The implication and ramification of unique material composition as road forming material in construction technology are significant.

Carpeting of road by utilizing specific plastic wastes (Polyethylene, Polypropylene & Polystyrene) in the form of shredded flakes size of 4mm to 12 with the ratio of 3 to 5 parts by weight, aggregates 90 parts by weight and bitumen 5 to 7 parts by weight.

Background:

The solution which is used for road carpeting is not durable & reliable because of atmospheric changes, and its bonding capacity gets weaker day by day. With constant contact with water, it gets worn very quickly. A better, longer-lasting solution is needed here, and my design is both cost-effective and durable.

Scope:

The invention to utilize plastic waste in mixing with bituminous asphalt mixer will have substantial bonding properties. We know that plastic can survive in every atmosphere below 150° to -10°. Indeed, it can be atmosphere and environment-friendly pavement. Most importantly, it has 2X life more durability and reliability than the current solution.

Description:

The plastic waste bituminous asphalt mixer for the road's pavement is more feasible than the current pavement solution.

Uses of plastic waste solve our two significant problems.

- First, the trash problem that impacts our health.
- Second, the roads with cracked potholes uneven surface that ends with unconditional near-death or death accidents and traffic jams.

Plastic waste bituminous asphalt mixer is solving these problems by consuming the PLASTIC WASTE IN ROAD PAVEMENT TO GIVE OUR ROAD NEW LIFE WITH DURABILITY AND RELIABILITY.

Process of manufacturing this pavement formula.

Pre heat aggregates at around 150 to 180° in an open container
Add plastic waste flakes
Mix it thoroughly for a proper coat on aggregates
Heat bitumen separately to 160 and maintained the temperature
Now put the bitumen in preheated plastic waste coated aggregates and mix it uniformly.

The plastic waste asphalt mix is ready for pavement.